revolution of Akhenaton was connected with the peculiar physical type of that famous Pharaoh. Egypt lost her empire, and when she recovered her strength in the nineteenth dynasty the great Pharaohs were found to have very strong faces and well developed skulls. To illustrate this point the lecturer showed a picture of Seti the Great, to whose tomb the Tutankhamen relics, recently unearthed, are being carried. Studies he had made when in Egypt afforded evidence that the weakness of the twentieth dynasty was accompanied by peculiarities in the skulls of the late Rameses Pharaohs.

THE VIRUS OF INFLUENZA.

A RECENT outbreak of influenza in South Africa afforded to Sir Spencer Lister, the well known bacteriologist, an opportunity of making some important observations which he describes in the *South African Medical Record* of November, 1922. He recalls that when influenza made its appearance in Johannesburg during the pandemic of 1918, Pfeiffer's bacillus—relatively absent in that community before the outbreak—was found by him in no fewer than 53 out of 56 cases dying with pulmonary complications; but his attempts to detect a filter-passing virus either by experiment or by culture failed. It is the more interesting, therefore, to learn that in this recent outbreak he has succeeded in satisfying himself of the presence of an anaerobic filter-passing organism similar to that defined by the careful studies of Olitsky and Gates in New York, and confirmed by Gordon in the London outbreak during the early months of 1922, as reported in our columns on August 19th, 1922. By sowing in Noguchi medium the filtered naso-pharyngeal washings taken within thirty-six hours of the onset of influenza Lister succeeded in obtaining a culture of the filter passer in 5 out of 15 cases. He comments on the ease with which the presence of this very minute organism may be overlooked without unusual concentration of gaze and accurate focusing. The stain which he found most successful for demonstrating the presence of the organism in films was Loeffler's alkaline methylene blue, the latter a specimen of Grubler's pre-war stock. The size of the organism was 0.15 of a micron, which is smaller than the organism found by Gordon, who estimated it to be 0.2 of a micron in diameter—a difference probably to be ascribed to the different methods of staining, as the latter observer employed prolonged staining in Giemsa's solution; he has seen preparations of Lister's organism, and agrees that it is identical with that observed by him in films of the nasal secretion and in cultures from the London cases. Lister has taken matters a stage farther than previous investigators by carrying out a preliminary experiment on human volunteers with cultures of this filter-passing organism. Sixty c.cm. of a culture in the second generation were divided into three portions—one-third was placed in a spraying bottle, one-third passed through a Berkefeld V filter and the filtrate placed in a second bottle, and the remaining third treated for half an hour to 56° C. and placed in a third spraying bottle. Six individuals were then sprayed with the unaltered culture, seven received the filtrate, and six the heated culture, about 1.5 c.cm. being sprayed into the nose and throat of each volunteer. The only one of these nineteen volunteers who complained of any discomfort had received the unaltered culture, and developed a typical attack of uncomplicated influenza beginning nineteen hours after spraying. The minute bodies were observed in smears of his nasal secretion, and a nasal washing was filtered through a Berkefeld candle. This filtrate on cultivation in Noguchi medium gave in five days a profuse growth of the organism. Two other individuals also in this first group that received the unaltered culture had a slight rise of temperature, and one of them showed a well marked leucopenia. Although, as Sir Spencer Lister is careful to point out, this result is not sufficiently conclusive to establish the filter passer as the cause of influenza, it is distinctly encouraging, and further reports of his enterprising investigations will be awaited with interest.

INSULIN.

THE many problems of physiological and therapeutic interest raised by recent investigation in Toronto of the internal secretion of the pancreas are beginning to attract attention in France. Dr. Gustave Monod, who has often acted as intermediary between the British and French professions, brought the subject before the Paris Therapeutical Society recently, and at the meeting of the Académie de Médecine on January 16th a short discussion followed a paper by M. Léon Blum of Strasbourg on the treatment of diabetes mellitus by insulin. Dr. Blum prepared insulin in accordance with the methods described in our columns by Macleod, Banting and his colleagues, and used it in two cases. Both patients were put on strict diet for a period, but continued to pass a considerable quantity of sugar in the urine; in both cases injection of the insulin M. Blum had prepared was followed by disappearance of the sugar. When the injections were discontinued the sugar and the accompanying symptoms returned. As for the practical value of the treatment, Dr. Blum arrives at a conclusion almost identical with one of those reached by Banting and his colleagues—namely, that in the present stage resort should be had to insulin in cases of diabetes in which it is essential to produce a rapid effect—such cases, for instance, as those of threatened gangrene or when a surgical operation is contemplated. In commenting on Dr. Blum's paper, Professor Achard related certain experiments he had undertaken at various times, and in particular some recent investigations by his pupil Gardin, hitherto unpublished. He prepared an aqueous decoction of pig's pancreas in a slightly acid medium, which was neutralized before injection into a vein. In all the cases treated the amount of sugar diminished and the respiratory quotient increased. In two other cases evidence was obtained that the extract given by the mouth at the same time as a dose of sugar increased the respiratory quotient, thus proving that it caused immediate combustion of sugar. Professor Achard expressed the opinion that the administration of the hormone of the pancreas would probably be a very useful method of treating diabetes, especially cases attended by severe acidosis. Professor Gley, after reviewing the situation and relating some early experiments of his own, concluded by saying that the great merit of Macleod and his fellow workers was that they had succeeded in obtaining active extracts direct from the animal pancreas and had carefully studied the physiological effects of these extracts.

PHYSIOLOGICAL EFFECT OF HIGH ALTITUDES.

MR. J. BARCROFT, F.R.S., communicated to the Royal Society on January 18th a paper discussing the observations made in the Andes on the effect of high altitude on the physiological processes of the human body. He began by enumerating the three principal factors which appear to have a positive influence in acclimatization. The first is the increase in total ventilation, which usually raises the alveolar oxygen pressure ten or twelve millimetres higher than it would otherwise be; the second is the rise in the oxygen dissociation curve so that at any oxygen pressure the haemoglobin will take up more oxygen than before; and the third is the rise in the number of red corpuscles, and correspondingly in the quantity of haemoglobin. These factors, though they were provisionally treated as independent variables, are not so in reality, for blood can be made artificially to resemble high-altitude blood by shaking out the CO_2 and then withdrawing a portion of the plasma, so that the blood is richer in corpuscles. Such blood has been found to give, at the alveolar CO_2 pressure of the Andes, a reaction which is apparently almost unchanged, or even more acid, as measured by the ratio of combined to free CO_2; a more alkaline reaction by the platinum electrode; and an oxygen dissociation curve which rises apparently out of proportion to the change in reaction. Herein, Mr. Barcroft believes, is the essence of the acclimatory process. The possibility of the oxygen dissociation curve altering owing to a specific loss of CO_2 could be ruled out. There was an

increase in the haemoglobin value of the blood and in the red cell count in all cases. On making the ascent there was a marked increase in the number of reticulated red cells; after the descent these cells fell to below their normal percentage. In the natives the ratio of reticulated to unreticulated red cells was not greatly increased, but the absolute number of reticulated cells per cubic millimetre was about 50 per cent. greater than normal. This was held to point to a hypertrophy in the bone marrow. There were no nucleated red cells. The increase in red blood corpuscles was such as to cause an absolute increase in the amount of oxygen in each cubic centimetre of blood in the majority of cases, in spite of the decrease in saturation. A number of mental tests of the ordinary type were performed at Cerro and at sea-level. These revealed no particular mental disability in the Andes, but, in the opinion of the observers themselves, as well as in that of psychologists who had been consulted, had shown rather that these tests were inadequate than that the mental efficiency was unimpaired. A number of tests were made to discover whether the pressure of oxygen in the blood was or was not higher than that in the alveolar air. In all cases they were so nearly the same that the passage of gas through the pulmonary epithelium was attributed to diffusion.

ZINC POISONING.

A SUDDEN outbreak of illness which occurred recently amongst the inmates of a large institution near London indicates that danger may arise from the use of galvanized iron vessels for cooking purposes. About 400 persons were served at tea with hot stewed apples. The remainder of the meal consisted of bread and margarine and tea. Within a few minutes more than 200 of whose who partook of the stew complained of dizziness, sickness or a feeling of sickness, colic, and tightness in the throat. There was some diarrhoea, but no double vision. The medical officer at once administered doses of bismuth and chalk mixture, and within a short time most of the sufferers had recovered and were able to take supper at 7.45 p.m. Only ten persons were at all seriously ill, and all of them were able to carry out their ordinary work next day, so that obviously the effects of the poisoning soon passed off. The apples were freshly gathered and were stewed in large galvanized iron "skeps," which were placed in iron steamers. The skeps were used because it had been found on a previous occasion that the apples became black if placed directly in the steamers. A chemical examination of some of the stewed apples remaining over from the meal showed that they contained 7 grains of zinc, expressed as zinc oxide, in the pound; this is equivalent to 25 grains of hydrated zinc sulphate to the pound. Taken internally zinc sulphate is very slowly absorbed, and any effect it produces is probably due to its local action on the alimentary canal. The dose mentioned in the *Pharmacopoeia* is 1 to 3 grains. Its emetic effect is probably to be attributed to its irritating action on the stomach. The emetic dose given in the *Pharmacopoeia* is 10 to 30 grains. Each person consuming the stew may be assumed to have taken 18 to 20 grains of zinc sulphate. As it is well known that vegetable acid can act on metals the cause of the outbreak hardly seemed in doubt from the first. Galvanized iron vessels are seldom or never used for domestic cooking, but the incident here related shows that managers of institutions should recognize the risk and prohibit the use of galvanized iron vessels for containing food materials, which are commonly acid, and therefore capable of dissolving zinc.

DENTAL PRACTICE IN EGYPT.

THE Dentists Act of 1921, prohibiting the practice of dentistry by unregistered persons and establishing a Dental Board and a new and much expanded *Dentists Register* for this country, has had its counterpart in Egypt. The last annual report of the Egyptian Department of Public Health mentions the introduction of a new law giving greater powers for dealing with unqualified dental practice, which was gradually becoming a serious public danger. The penalties under the old law, it is said, afforded an insufficient deterrent to a gradually increasing horde of ignorant charlatans who found in the practice of dentistry a lucrative source of gain. Just as in this country, the new Egyptian law makes a distinction in favour of those unqualified practitioners who through long practice had acquired a certain empirical knowledge of the art. It was felt that "to remove suddenly what had previously been an accepted means of livelihood would have entailed a considerable hardship upon many individuals whose claims to dental knowledge were sufficiently justified to remove them from the category of those who constituted an actual danger to the public." Certain transitory clauses were therefore included providing for the grant of a modified form of permit to such as cou'd prove that they had been actually in continuous practice as dentists for at least ten years before the promulgation of the law, and who could sufficiently justify their claims to be allowed to practise their art by passing a special examination held by a board of examiners constituted for the purpose. This rigorous condition—much more exacting than the corresponding conditions laid down in Clause 3 of the British Dentists Act—is no doubt explained by the differences between unqualified dentistry as practised in Egypt and in this country. We learn that considerable difficulty was experienced in deciding upon the claims submitted with regard to length of practice. The nature of the difficulty may be guessed from the following discreet sentence: "In many cases the Committee formed to inquire into these [claims] was placed in the position of having to view with considerable suspicion some of the documentary evidence submitted." In the outcome 218 candidates were admitted to the technical examination, of whom 25 were rejected because they could not satisfy the examiners that they possessed sufficient practical knowledge to justify permission to continue their calling. To guard the primitive-minded people of Egypt from being practised upon by incompetent persons must be no easy task in these days of political uncertainty.

ERYTHREDEMA OR THE "PINK DISEASE."

THE abstract of Zahorsky's paper on the "pink disease" in the issue of January 20th (p. 123) has aroused considerable interest, and has called attention to a paper by Dr. W. E. Hume of Newcastle published in this JOURNAL on September 2nd, 1911. This author collected and described a series of cases of general oedema in children following gastro-enteritis. In the thirteen cases classified by him, in nine diarrhoea and vomiting is recorded; oedema, universal or limited to the hands or feet, was present in every case, and cyanosis of the extremities, slight or marked, in ten cases. The ages of the patients varied from 13 months to 4 years. These cases differ from those described by Zahorsky in the absence of the striking and usually early erythematous eruptions and of the severe pruritus, and in the presence of the initial diarrhoea and vomiting which are almost constant features in Hume's series. The swollen and cyanotic condition of the hands and feet was apparently similar in both series.

POST-GRADUATE EDUCATION IN LONDON.

THE Fellowship of Medicine has invited representatives from the staffs of the hospitals interested in the establishment of a scheme of post-graduate education in London to a conference, to be held, by kind permission of the Royal Society of Medicine, at 1, Wimpole Street, on Thursday, February 8th, at 5 p.m. The object with which the conference has been arranged is to afford an opportunity of discussing how far the Fellowship of Medicine can continue to promote the cause of post-graduate instruction and hasten the time when a permanent and comprehensive organization in London is an accomplished fact. Larger schemes, in which the University of London and the University Grants Committee are interested, are, we believe, under consideration, but in the most fortunate circumstances it must be some considerable time

before they can come into effect. The Fellowship of Medicine was founded to help medical visitors to London, more particularly on the social side. London is not inhospitable, but its hospitality is patchy. The Fellowship owed much to the initiation of Sir William Osler, who had also taken the lead in founding the Post-Graduate Medical Association. The two bodies have been amalgamated and have kept the flag flying since the beginning of 1919. The combined body deserves, perhaps, more credit for this than it has received; it may, we hope, be enabled to continue its work of co-ordination and propaganda.

THE CIVIL PROFESSION AND THE MEDICAL SERVICES.

A DISCUSSION on co-operation between the medical services of the civil and armed forces in peace and during war will take place at the meeting of the War Section of the Royal Society of Medicine on Monday, February 12th, at 5 p.m. The subject will be introduced by Surgeon Commander R. J. McKeown, O.B.E., M.B., R.N., and Surgeon Commander A. Gaskell, C.B., R.N. The discussion will be opened by Air Commodore D. Munro, C.S.I., F.R.C.S., D.M.S., R.A.F., and continued by Major-General C. E. Pollock, C.B., C.B.E., D.S.O., D.D.G., A.M.S., Sir Crisp English, K.C.M.G., F.R.C.S., and others. The subject, it is believed, will be of interest to all medical men, and visitors, whether members of the Section or not, will be welcomed.

WE have to announce with deep regret the death, on January 28th, after a long illness, of Dr. James Ritchie, professor of bacteriology in the University of Edinburgh. We hope to publish an account of his career in an early issue.

Nova et Vetera.

DR. THOMAS SHORT: AN EARLY MEDICAL STATISTICIAN.

"DR. THOMAS SHORT," wrote Dr. Creighton, "a man of great industry, about the middle of last century obtained access to a large number of parish registers, and worked an infinite number of arithmetical exercises upon their figures. His abstract results or conclusions are colourless and unimpressive, as statistical results are apt to be for the average concrete mind; nor can they be made to illustrate the epidemic history of Britain with the help of his companion volumes—*A General Chronological History of the Air, Weather, Seasons, Meteors, etc.*—for these extraordinary annals are for the most part loosely compiled from foreign sources, bringing into one focus the most scattered references to disease in any part of Europe, and that too without criticism of authorities but often with surprising credulity and inaccuracy. That so much statistical or arithmetical zeal and exhaustiveness (in the work of 1750) should go with so total a deficiency of the critical and historical sense (in the work of 1749) is noteworthy, and perhaps not unparalleled in modern times."

We are not in a position to rebut Dr. Creighton's charges against the *General Chronological History*, never having seen a copy of that rare book; we will, however, roundly assert that *New Observations, Natural, Moral, Civil, Political, and Medical, on City, Town, and Country Bills of Mortality*, if unimpressive are certainly not colourless. Dr. Thomas Short's arithmetical exercises led him to rather gloomy conclusions, which he stated in very vigorous terms. The birth controllers of the period are informed that

"if Whoredom be a Fault, Suicide is a far greater Crime: by Suicide is meaned, not only the Destruction of real Beings in the Womb, Birth, or immediately after; but all nefarious Practices used by wicked Wretches to prevent Conception from their carnal Gratification."

Short was an adherent to the House of Hanover, and was glad to be able to point out that by their accession "Industry was promoted and Trade vastly increased, to the Accumulation of Riches."

But unfortunately there were other effects:

"For the Truth of these sad Effects, I might appeal from the Registers, to the City Table of Casualties, and see which Periods have produced most hereditary Gouts, venereal Taints, in which are most Apoplexies, or violent Deaths, either by the Executioner, or the Wretches' own butcherly Hands have been most employed, Drunkenness and Swearing most common. I might appeal further to the Death of Infants then and now, whether 30 or 47 *per cent.* are the greater Numbers; and whether 2 of 17 that died of the Small-pox, or 4 in 21 be the most, or one of 35 that died then of Convulsions, or 9 of 35 that die now of them."

Short's medical philosophy was iatro-mechanical rather than Galenical and—*horresco referens*—he was jocular at the expense of Sydenham. He has a chronology of epidemics and we read: "61 to 64, *Sydenham's* depuratory Fevers, which, however, in 65 depurated to the fatalest Plague ever the Metropolis felt." But the general opinion of his colleagues was much the same as Sydenham's, as the following remarks show:

"Some take in a larger Circle of Medicines, but from some false Idol (as *Baglivi* terms it) or others may prescribe in such a random, tumultuous Way, as rarely succeeds well. Others may imagine, that keeping steadily to the same Intentions in the same Diseases, at all Times, will be equally successful at all Times, than which nothing is more false: Others have a dextrous Knack in discovering a Smatch of the *Gout, Fever, Scurvy*, or *Hippo* in all Diseases; others will relish nothing but what is the Product of the Furnace, by Crucible and Retort; or believe nothing but what they see with their own Eyes, or hear with their own Ears, as though all were Liars but they, and thereby give suspicion that they themselves are such."

As a statistician, Short's place in order of merit, as in time, is after Graunt and before Heberden. He had neither the originality nor concentration of Graunt, but his industry was, as Creighton said, immense. He has collected data in some instances ranging over a full 200 years, from the first introduction of parish registers by order of Henry VIII's minister Cromwell. He has compared the results in parishes in different soils and at different elevations, he has correlated mortality with air temperature and barometric pressure and printed all his evidence. Of course, the chief difficulty of interpretation is the absence of a census record. Thus Short always used the ratio of christenings to marriages as the just measure of fertility; no other measure was available. But naturally it is only correct when the frequency of marriages and the population "at risk" are constant. The ratio will understate the gross fertility if marriages are increasing. It would not be safe to infer from his data that the population was more prolific in his second period (roughly the 100 years down to his time) than in the first period (the middle of the sixteenth to the middle of the seventeenth century) because the ratios of christenings to weddings were respectively 4.3 and 3.99. At the same time it is proper to notice that there is a high correlation between his ratio and more exact measures even in a rapidly increasing population.

Thus in England and Wales in the years 1871, 1881, 1891, 1901, and 1911, the ratios of births to marriages were 4.2, 4.5, 4.0, 3.6, 3.2. The legitimate births per 1,000 married women aged 15 to 45 were 288.4, 284.9, 263.8, 234.2, 196.2. Turning the two series into percentages of the first figure of each we have 100, 107, 95, 86, 76: 100, 99, 93, 81, 68.

The inference Short would have drawn from the former series would not be substantially modified by the latter. The same kind of criticism applies to reasoning from the ratio of burials to christenings and is here rather more formidable because of the consequence of migration or, as Short termed it, export. He dealt with the latter point very ingeniously, and proposed a method of computing the number of imports. His method may be shown by an example. It depends upon the assumption that 57 per cent. died before attaining the age of 20. One of his tables gives 211,233 baptisms; he deducts 57 per cent. and is left with 98,071 (so he says, but it should be 90,830, we think). But the table gives 136,942 married, which, he says, is 38,867 more than the survivors. But all the survivors to 20 do not marry; an allowance of 5½ per cent. for the celibates reduces the married survivors to 92,972. Subtracting this from the numbers married he gets a balance of 43,963 for imports and unregistered births. Of course, he had no means of measuring the age distributions in the parishes, but he was fully aware that

"it is Idleness or Ignorance to estimate the Healthiness of any Place, from its having a few old People; for such Places are not habitable, where some Constitutions (especially such as are inured to them) will not weather out Life to old Age in any Soil or Situation."

With that sensible remark we take leave of Dr. Thomas Short, whose book contains more wit and much more wisdom than many newer treatises.

The Jenner Celebrations.

PARIS.

THE CENTENARY OF JENNER AT THE ACADÉMIE DE MÉDECINE.

[FROM OUR PARIS CORRESPONDENT.]

THE meeting of the Académie de Médecine on January 23rd was devoted to the praise of Jenner. The famous Salle des Pas Perdus presented an unwonted aspect; it echoed to the feet of many visitors, for there was displayed in it a collection of all that could be got together in the way of documents concerning Jenner and the beginning of vaccination. The magnitude of the collection was all the more remarkable because the Jenner exhibition in London must have prevented the loan of many interesting objects. Apart from some valuable relics kindly lent to the British delegates the exhibition was entirely the work of the Continental admirers of the great man: books, portraits, medals, china, caricatures, all were to be seen; Dr. Cumston had brought from Geneva a unique example of the famous engraving by Scriven after the portrait by J. R. Smith—unique because it was in colours. The special numbers of the BRITISH MEDICAL JOURNAL—the Jenner Number, 1896, and the Vaccination Number, 1902—were given a prominent place. Dr. Vitoux, the well known Parisian collector, exhibited some autographs, one of them showing that the *crise des logements* even then needed a preventive vaccine:

My dear Madam,

I am at length in London but have not yet been able to get appartments, except at an hotel. When I have, you shall again hear from me.

Edw. Jenner.

Imperial Hotel, Covent Garden.

Now the meeting opens; the president, Professor CHAUFFARD, and the committee enter, wearing plumed cocked hats and regulation embroidered coats. The Minister of Hygiene represents the Government of the Republic, and Lord Crewe, the British Ambassador, is represented by the First Secretary to the Embassy. A large number of foreign guests have accepted the invitation to France, and in the foremost seats we see the delegates of Belgium, Canada, Greece, Holland, Italy, Peru, Portugal, Rumania, Sweden, Switzerland, Czecho-Slovakia, Tunis, and Turkey. Need I add that our English friends were represented? I need not, for the representatives are at home in Paris and belong to the academic family; Dr. R. O. Moon representing the Royal College of Physicians of London, Sir Ronald Ross, K.C.B., the Ministry of Health, and Sir StClair Thomson and Sir Almroth Wright the Royal Society of Medicine.

Professor CHAUFFARD gave a short and charming address, in which he traced the history of the fight against small-pox and described what manner of man Jenner was. Then Dr. CAMUS, Directeur de l'Institut Supérieur de Vaccine, dealt with Jenner's work from the scientific point of view. This was the *plat de résistance* of the occasion. Then came Professor TEISSIER, who in vivid and eloquent words related the share of French science and of the Académie de Médecine in the dissemination of knowledge of the new methods. He quoted some striking figures. During the war of 1870–71—a short war, with relatively few men engaged—the French army had 200,000 cases of small-pox, and nearly 30,000 deaths from that cause. During the recent war, with an army of four million men, mobilized for four years and a half, only four cases occurred, and these four imported. Dr. JEANSELME sketched the progress of vaccination in the French colonies, describing it as an agent of civilization; and Professor D'ESPINE recalled the part played by Genevese physicians in the propagation of vaccination.

Dr. SOUQUES, the annual secretary of the Académie, read a paper on small-pox in London, prepared by Dr. BLAXALL, and expressed his regret and that of the audience that the author had been unable to read it himself.

Sir STCLAIR THOMSON, in the name of the Royal Society of Medicine, won the heart of the audience with a spirited Thomsonian speech delivered in the purest Parisian French. He presented to the Académie de Médecine a fine engraving of Jenner, the gift of Dr. Walter S. A. Griffith, and also the picture of the twenty-one founders of the Medical Society of London with the portrait of Jenner in the background. He pointed out how Jenner was the precursor of Pasteur, just as Pasteur opened the way to Lister.

Professor ACHARD, secretary-general of the Académie, then read the following address of gratitude and sympathy, signed by the President of the British Medical Association and the Chairman of Council, in the name of the 24,000 members of the Association.

TO THE ACADÉMIE DE MÉDECINE

On the Occasion of its Celebration of the Centenary of Edward Jenner's Death.

The British Medical Association has heard with great pleasure that the Académie de Médecine is about to celebrate the centenary of the death of a great Englishman, Edward Jenner. The Association desires to express its warm appreciation of this act of spontaneous generosity. The Association does not forget the graceful words in which a great Frenchman, Louis Pasteur, in his address to the International Medical Congress in London in 1881, referred to Jenner: "I have," he said, "given to the term 'vaccination' an extension which science I hope will accept as a just homage to the immense services rendered by one of the greatest of Englishmen—Edward Jenner." The British Medical Association has over 23,000 members who are practising medicine in all parts of the British Empire. Each one of them, wherever his lines may be cast, is, alike in his conception of the principles of medicine and in his daily application of these principles to the alleviation of suffering and the prevention of disease, under an immense debt to Pasteur. The British Medical Association is proud to know that Pasteur himself desired to associate with his own great achievements the name of Edward Jenner.

Signed on behalf of the Association,

WILLIAM MACEWEN,
President.

R. A. BOLAM, M.D.,
Chairman of Council.

January 19th, 1923.

Professor Achard concluded by showing a number of lantern slides illustrating the life and work of Jenner.

In the evening a banquet was held to which your correspondent was specially invited. Our visitors received a most cordial welcome, and when Sir Almroth Wright, Sir Ronald Ross, and Dr. Moon in succession rose to address the company in French each one of them was greeted by a *ban* given vigorously in the French fashion.

That the centenary of the death of Jenner and of the birth of Pasteur should have fallen almost at the same time seems providential: these two benefactors of mankind succeeded each other in time as they did in genius. It is impossible to put into dry words the atmosphere which pervaded the day. The symbolic significance of the presence of representatives of so many countries coming together in France to render homage to a great Englishman appealed alike to eye and heart. We live in difficult times, but if we know how to lift ourselves high enough we shall breathe a purer air. Jenner, Pasteur—these names arouse in us the highest kind of enthusiasm; they shine upon the peoples like the sun, which has no regard for frontiers. The relations of our two great masters, like the relations of our two races—I borrow here from Sir StClair Thomson's peroration—may they not be expressed in these two lines from Shakespeare:

"Are we not made as notes of music are,
For one another, though dissimilar?"

LONDON.

COMMEMORATION AT THE ROYAL SOCIETY OF MEDICINE.

THE centenary of the death of Edward Jenner was celebrated at a special meeting of the Royal Society of Medicine on January 26th, when the President of the Society, Sir WILLIAM HALE-WHITE, delivered an address. The members of the audience, on arrival outside the building, were diligently plied with antivaccinationist leaflets—in the circumstances a grotesque misdirection of energy.

On the platform William Hobday's portrait of Jenner, which has been presented to the Society by Dr. W. S. A. Griffith, was displayed. The portrait, painted in 1821, represents Jenner seated, dressed in a cloak, with a fur collar, one arm resting on a volume lettered "John Hunter," while a paper relating to vaccination lies on the table.

JENNER: NATURALIST, PATHOLOGIST, AND COUNTRY DOCTOR.

ADDRESS BY SIR W. HALE-WHITE.

Sir WILLIAM HALE-WHITE devoted his address to a delineation of Jenner's personality, and not an appraisement of his great discovery, which he judged to be unnecessary before such an audience. He remarked that it was fitting to commemorate the centenary in the Royal Society of Medicine, because Jenner was one of the foundation members of the former Medical and Chirurgical Society, and contributed two papers to the first volume of its *Transactions*.*

Jenner was born at Berkeley, in Gloucestershire, in 1749. He was the son of Stephen Jenner, vicar of the parish, who had been tutor to one of the Earls of Berkeley. His father died soon after Edward's birth, and the boy was brought up by his brother, also a Rev. Stephen Jenner. At 8 years of age he went to school at Wotton-under-Edge, and later to a tutor at Cirencester. After a pupilage to Mr. Ludlow, a practitioner at Sodbury, in Gloucestershire, Jenner came to London at the age of 21, and for two years resided in the house of John Hunter. "Nothing could have been more fortunate, for both men were enthusiastic naturalists, always observing, inquiring, and speculating." On Hunter's recommendation Jenner was appointed to examine and prepare the specimens of natural history brought back by Captain Cook in 1771; he declined the offer of the post of naturalist to the expedition which sailed in the following year.

The Soul of a Naturalist.

After Jenner's return to Gloucestershire many letters passed between the two until Hunter's death in 1793. All Jenner's letters had been destroyed, but from Hunter's it was evident that Jenner made many observations for Hunter on the hibernation of animals. In one letter Hunter thus disposed of Jenner's disappointment in love:

"I own I was glad when I heard you was [to be] married to a woman of fortune; but let her go, never mind her. I shall employ you with hedgehogs, for I do not know how far I may trust mine. I want you to get a hedgehog at the beginning of winter and weigh him; put him in your garden, and let him have some leaves, hay, or straw to cover himself with, which he will do; then weigh him in the spring, and see what he has lost. Secondly, I want you to kill one at the beginning of the winter to see how fat he is, and another in the spring to see what he has lost of his fat. Thirdly, when the weather is very cold, and about the month of January, I wish you would make a hole in one of their bellies, and put the thermometer down into the pelvis, and see the height of the mercury."

Probably no other disappointed lover had been bidden to seek solace in hedgehogs! Many other letters of Hunter were concerned with these animals, and, indeed, nine-tenths of the letters were taken up with requests for specimens or for experiments in natural history. That Jenner had in him the soul of a naturalist was shown by the fact that one of Hunter's letters began: "I do not know anyone I would sooner write to than you; I do not know anybody I am so much obliged to." It was Hunter who stimulated Jenner to study the habits of the cuckoo, on which subject Jenner sent a communication to the Royal Society in 1788.

The Complete Country Practitioner.

When Jenner took up general practice in Berkeley (in 1773) his talents gained him confidence and esteem, and his practice and reputation rapidly increased. A patient in the Gloucester infirmary requiring an immediate operation, and neither of the surgeons being available, Jenner, sixteen miles away, was summoned, and performed the operation successfully. He was disappointed by the uncertainty of the action of tartar emetic, and published an improved process, which led Hunter to write: "I am puffing off your tartar as the tartar of all tartars. . . . Let it be called Jenner's tartar emetic." In 1777 Hunter wrote to Jenner, saying that he was ill, and Jenner, suspecting that he was suffering from angina pectoris, visited him and found the surmise correct. He wrote to Heberden to say that, as a result of *post-mortem* examinations, he had come to the conclusion that angina pectoris was due to disease of the coronary arteries, but that he hesitated to make his opinion public or to tell Hunter for fear of distressing his friend. This was the first account of the association of diseased coronary arteries and angina pectoris. In a letter to Dr. Parry of Bath Jenner gave a quaint account of his first case:

"I was making a transverse section of the heart pretty near its base, when my knife struck against something so hard and gritty as to notch it. I well remember looking up at the ceiling, which was old and crumbling, conceiving that some plaister had fallen down. But on a further scrutiny the real cause appeared: the coronaries were become bony canals."

He read a paper on this subject before a society of doctors, called the "Medico-Convivial," which met at a country inn at Rodborough. Another paper of his was on heart disease occurring during rheumatism. Jenner was popular with his fellow doctors and with his patients. He frequently spent days in the houses of particular friends, especially if any of them were ill, carrying on his practice from his temporary quarters. Educated people loved his conversation, and he used to encourage those whom he liked to ride with him on his rounds. When he left a patient's house often some of the family would ask permission to ride home with him even if it was midnight. His range of conversation was vast; he was often witty, was fond of epigram, and was no mean poet; also he could sing and play the violin and flute.

In 1788 Jenner married Miss Catherine Kingscote, and in the following year his son Edward was born, John Hunter standing as godfather. In 1792 the fatigues of an ever-increasing practice had become so great that Jenner resolved to practise solely as a physician, and accordingly he obtained the M.D. degree of St. Andrews. His friend Gardner thus described his appearance at this time:

"His height was rather under the middle size, his person was robust but active and well formed. In dress he was particularly neat. . . . He was dressed in a blue coat and yellow buttons, buckskins, and well polished jockey boots with handsome silver spurs, and he carried a smart whip with a silver handle. His hair, after the fashion of the times, was done up in a club, and he wore a broad-brimmed hat."

"Everything we know of him," said Sir William Hale-White, "indicates that he was usually cheerful and sociable, very occasionally he was depressed, and we find him complaining that he was an example of the sin of indolence. Many busy people, being aware how much there is to do in the world, at times blame themselves for this."

The Great Discovery.

When as a youth Jenner was an apprentice at Sodbury, a young woman came to his master's house, and on small-pox being mentioned said at once, "I cannot take that disease, for I have had cow-pox." That remark set Jenner thinking, and afterwards he talked about it to Hunter, who characteristically told him, "Don't think, but try, be patient, be accurate." When he went into practice he discussed the question with other doctors, who were sceptical, for they said that cow-pox often did not protect from small-pox. This difficulty Jenner overcame by finding that the eruptions on the udders of cows were not always true cow-pox, and that the vesicles of cow-pox were not equally virulent at all periods of their development. By 1780 he believed he was in sight of a means of completely eradicating small-pox by inoculation with cow-pox. In 1789 he inoculated his eldest son with swine-pox matter; subsequently variolous matter was inserted, and again in two subsequent years. None of these three small-pox inoculations caused small-pox in the child. In 1796 matter was taken from the hand of Sarah Nelmes,

* "Distemper in dogs" and "Two cases of small-pox infection communicated to the foetus *in utero*, under peculiar circumstances," both contributed in 1809.

who had been infected with cow-pox by her master's cows, and inserted into the arm of James Phipps, aged 8 years. Two months later variolous matter was taken immediately from a small-pox pustule and carefully inserted by several incisions. Days of the intensest anxiety to Jenner dragged by, but James Phipps did not have small-pox. Jenner wrote to his friend Gardner on July 19th, 1796:

"As I promised to let you know how I proceeded in my inquiry into the nature of that singular disease the cow-pox, and being fully satisfied how much you feel interested in its success, you will be gratified in hearing that I have at length accomplished what I have been so long waiting for, the passing of the vaccine virus from one human being to another by the ordinary mode of inoculation.

"A boy named Phipps was inoculated in the arm from a pustule on the hand of a young woman who was infected by her master's cows. Having never seen the disease but in its casual way before—that is, when communicated from the cow to the hand of the milker—I was astonished at the close resemblance of the pustules, in some of their stages, to the variolous pustules. But now listen to the most delightful part of my story. The boy has since been inoculated for the small-pox, which, as I ventured to predict, produced no effect. I shall now pursue my experiments with redoubled ardour."

In 1798 Jenner published his famous little book, called for short the *Inquiry*. It contained the record of numerous cases. Some of them showed that persons who had had cow-pox did not get small-pox either when exposed to it or when inoculated with it; some showed that if a person had had small-pox he was protected against cow-pox; some that those inoculated with cow-pox were immune to small-pox inoculations, and others again that material taken from the cow-pox pustule in the human being might be used to inoculate other human beings, who were thus equally protected from small-pox.

World-wide Progress of Vaccination.

After the publication of his book Jenner's correspondence left him little time for practice. Most of his contemporaries in the profession saw that a great discovery had been made, though there were a few who gave trouble, for Jenner wrote: "Brickbats and hostile weapons of every sort are flying thick around me"; and, "I am beset on all sides by snarling fellows." The *Inquiry* found its way to the Continent in 1799. The day on which the boy Phipps had been vaccinated—May 14th—became an annual festival in Berlin. The French Government offered vaccination gratuitously to all who could not pay for it. Thanks to Lettsom, vaccination made its way to America. Jenner himself offered a thousand guineas towards the cost of getting vaccination to India, but he was not called upon for this money, because De Carro of Vienna had already been the means of introducing it there. By decree of the Dowager Empress of Russia, the first child in Russia to be vaccinated was named Vaccinoff, and provision was settled on her for life.

Meanwhile, such was Jenner's occupation with journeys, correspondence, and gratuitous vaccination that his practice disappeared. Many persons thought he ought to be rewarded by Parliament. A petition accordingly was presented, and was referred to a committee, which advised a grant. The sum of £10,000 was voted in the House of Commons. Other honours were heaped upon him, but what he appreciated most was the praise of members of his own profession. Sir W. Hale-White gave an account of Jenner's appearances during a long debate, occupying several successive nights, in the Physical Society of Guy's Hospital. On entering the theatre he was constantly received with universal and rapturous applause. A pamphlet by John Birch, surgeon to St. Thomas's Hospital, and an opponent of vaccination, was interesting in this connexion:

"The anniversary of Mr. Guy's Hospital was held in 1802, where I expected to meet the professors, the medical gentlemen, and the students on the same terms as usual. What was my surprise to find that the sole business of the meeting was to begin a canvass for names to a Petition to Parliament in support of Dr. Jenner's bill. I refused to sign it. My surprise was increased after dinner to find that toasts and songs and compliments from one professor to another in honour of vaccination were the order of the day."

Jenner's friends thought that he would make a handsome income if he settled in London, and consequently he started practice at Hertford Street, Mayfair, but it was a failure. Most persons seemed to consider that as he had a grant he was the servant of the public (although the grant was not paid for two years, and when it was paid £1,000 was deducted for expenses). After a fair trial, he relinquished the London practice and returned to Berkeley, becoming again the village doctor. The London experiment had been costly, and his supporters brought before Parliament the question of a further grant. The Royal College of Physicians, on the instruction of the Government, reported on the subject of vaccination in 1807, under the signature of Sir Lucas Pepys, the President, and stated that the truth of the practice "seems to be established as firmly as the nature of such a question admits." As a result of this report the Chancellor of the Exchequer proposed a grant of £10,000, which, by amendment in the House, was raised to £20,000, with the fortunate condition for Jenner that it was to be free of fees.

Jenner's Last Twenty Years.

Jenner now lived at his house, "The Chantry," in Berkeley, doing the work of an ordinary country practitioner. In the garden was an arbour in which he used to vaccinate the poor gratuitously. Sometimes he visited Cheltenham and Bath, occasionally he had the opportunity of seeing celebrated visitors to his neighbourhood. He was as eager as ever in the study of nature; a charming note of his described how moths fed upon the night-blowing primrose. He also did much work on the migration of birds. "In no wise was he puffed up with his fame. He remained a simple, unostentatious man, a friend of his neighbours, whom he liked to meet at dinner. He freely gave of that most valuable of all commodities, his time; he was assiduous as a magistrate, he would listen to all callers, rich and poor, at whatever time they came to him. He was particularly cordial to all his fellow practitioners, and especially liked talking with the younger of them. His kindness to the poor was continual. Phipps (the subject of his vaccination experiment) became very ill; therefore, as he lived in a miserable place, Jenner built him a comfortable cottage, himself stocking the garden with shrubs and flowers. One of the villagers showed considerable ability, whereupon Jenner took him to a 'Musick Meeting' at Gloucester. Indeed, as far as we can gather, he led the happy life of the perfect country doctor."

His fame continued to spread. Diplomas, honours, and addresses were awarded to him to the number, according to Baron, of forty-seven. The freedom of the City of London and of five other cities in the kingdom was presented to him. He received an honorary degree from the University of Oxford. He was made physician-extraordinary to the King. One great distinction was his unanimous election as a Corresponding Member of the National Institute of France; later he became one of its Foreign Associates. One interesting tribute came from the Indians of North America, to whom Jenner had sent his book. The chiefs held a meeting to thank him, and in their reply said:

"We shall not fail to teach our children to speak the name of Jenner, and to thank the Great Spirit for bestowing upon him so much wisdom and so much benevolence. We send with this a belt and a string of wampum in token of our acceptance of your precious gift; and we beseech the Great Spirit to take care of you in this world and in the land of Spirits."

Such was the gratitude of mankind to Jenner that he attained an influence throughout the world such as had never been acquired before or since by a private individual. His name was enough to obtain the release of some Englishmen imprisoned by Napoleon and by other monarchs. Those who travelled abroad were able to dispense with passports if they took a certificate by Jenner. The European inhabitants of India gave him £6,000 in their gratitude. Many medals were struck in his honour and many statues set up. Of his various portraits that by Hobday was considered the best, and by the great generosity of Dr. W. S. A. Griffith it had been presented to the Royal Society of Medicine. On looking at Hobday's portrait no one would be surprised to learn that Jenner was liable to apoplexy. His first attack took place in 1820, his last and fatal attack on January 26th, 1823.

"Usually," said Sir W. Hale-White in conclusion, "when a really great discovery is made it is attacked by ignoramuses, fools, knaves, and cranks. In their day they had their fling at Jenner, but I have not alluded to them, for time and Jenner's fame have cast them into obscurity, where they had better stay. Nor have I given any proofs of the efficacy of vaccination; this has been done over and over again. . . . Rather have I tried to delineate the quiet, retiring country doctor, fond of poetry, music, and painting, beloved by those who knew him, quite unspoilt by fame such as has fallen to very few, a great naturalist, the friend of Hunter, a man who would have been known as a pioneer pathologist if he had published his observations, who by patient thought and observation, extending over many years, arrived at a discovery which not only told us how to banish one of the greatest scourges of mankind, but the principle of which has since been applied equally successfully to other diseases."

Sir ANTHONY BOWLBY proposed a vote of thanks to Sir William Hale-White for his address. Without entering too deeply into statistics, Sir William had made plain the ravages of small-pox in the pre-vaccination era. At a time when the population of England was only about seven millions the deaths from small-pox were said to amount to 44,000 a year. It was evident also from the way in which Jenner's discovery was acclaimed in all countries that the disease must have been extraordinarily prevalent almost all over the world. Sometimes, when he looked at pictures which illustrated society beauties of 150 years ago, he thought there was not much to be said for their features; but the explanation probably was that the population was so largely pockmarked that almost any woman who had an unsullied complexion was distinguished among her sisters, and, given passable charms, ranked as a beauty. Sir William Hale-White had alluded very briefly to the fact that the British army was spared small-pox in the late war. One of the striking things in the medical history of the war was that there was hardly a zymotic disease which did not make its appearance at one time or another in one part or another of the war area of France and Belgium; but there was only one case of reputed small-pox, and that turned out not to be small-pox at all. When the North Midland Division came out to France it was discovered that it included 8,000 unvaccinated men. These men had come from areas, like Leicester and Derby, where there had been much antivaccination propaganda, and the authorities had a good deal of anxiety before these men were put into the line. It was supposed that the order for vaccination might give trouble, but actually there was none; it was put to the men that it would be assumed by the command that anybody who was afraid of being vaccinated was afraid of fighting; whereupon all the men were vaccinated. Pasteur was born a month before Jenner died; it seemed as though one great spirit had handed on the torch of science to another great spirit; and the greatness of mind of a great man was brought out in Pasteur's statement that to Jenner and not to himself should be given the credit for the discovery of the attenuated virus. It was at Pasteur's request that the name of "vaccine," instead of some new name, was given generally to the matter introduced in preventive inoculations against other diseases.

Dr. R. J. REECE, C.B. (Senior Medical Officer, Ministry of Health), seconded the vote of thanks, and referred to the fact that the Section of Epidemiology and State Medicine, of which he was president, awarded a Jenner medal on occasion to distinguished epidemiologists. Dr. Reece mentioned that his father was vaccinated by Edward Jenner himself.

The vote of thanks was accorded by acclamation.

THE JENNER MEMORIAL MEDAL.

THE Jenner Memorial Medal here illustrated was founded by the Epidemiological Society at a meeting held on May 15th, 1896, one hundred years and one day after the date on which Edward Jenner performed his first vaccination. The desire of the society was to commemorate a discovery attended with such brilliant results in the direction of preventive inoculation and to promote epidemiological research.

The award of the medal was not to be restricted to British subjects. An appeal was made to the profession to contribute to the cost, and subscriptions were received from all parts of the world. The medal was designed by Mr. Allan Wyon, F.S.A., under the advice of a committee, of which Sir Shirley Murphy was president. On the obverse of the medal is a three-quarter face portrait of Edward Jenner, with the inscription "Edward Jenner, M.D., F.R.S., born 1749, died 1823," and on the reverse a representation of the earth, such as is engraved on the diplomas of the society, surrounded by the following inscription: "Centenary of Vaccination Celebrated 1896. For Work of Great Merit. Epidemiological Society of London. Venienti Occurrite Morbo." The name of the medallist and the date of the award are inserted on the rim of the medal. Since the Epidemiological Society has been merged in the Royal Society of Medicine the medal has been bestowed on the recommendation of the Section of Epidemiology and State Medicine.

The persons the pre-eminence of whose work in the prevention and control of epidemic disease has been recognized in this way are: 1898, Sir William Henry Power, K.C.B., F.R.S.; 1902, Professor A. Laveran; 1912, Sir Patrick Manson, G.C.M.G., M.D., F.R.S.; 1921, Sir Shirley Murphy, K.B.E., F.R.C.S.; 1922, John C. McVail, M.D., LL.D., F.R.F.P.S.G.

THE JENNER MEMORIAL MEDAL: FOUNDED 1896.

THE JENNER RELICS.

MR. C. J. S. THOMPSON, of the Wellcome Historical Museum, kindly placed on view a collection of relics and exhibits connected with Jenner. They included many articles of much personal and historical interest. Among personal belongings there were Jenner's walking-stick, eyeglasses, snuff-box, seal with crest, medicine cabinet, cupping glass, vaccine points cut from a quill, lancets, visiting book, note-book, and prescription book. The walking-stick has at the top the old-fashioned cavity for camphor, protected by a perforated screw lid. There were also medals (one presented to Jenner by Sacco), diplomas, addresses, holograph letters, and portraits. Two locks of his hair were preserved—one, at 55 years old, dark brown, the other, taken at his death, mixed with grey but by no means white. Neither seemed to correspond very closely with the colour of hair in the Hobday portrait exhibited in the lecture hall. Many old books relating to small-pox and vaccination were on view. His own works of course were among them, and included both editions of the *Inquiry*, the first dedicated to Dr. Parry of Bath, and the second to the King. Other writers represented were Dimsdale, Haygarth (his *Sketch of a plan to exterminate the small-pox*), Aitken, Willan, Moore, Ceely, and Bousquet. The coloured caricatures and cartoons of the early controversies made a large display, and illustrated the old predictions about the human countenance being changed by vaccination into the visage of a cow, and the new and undreamt-of diseases produced by cow-pox.

The exhibition was particularly rich in illustrations of the day-to-day appearances of the development and decline of the vaccine vesicle. Among them was a copy of the plate in Aitken's little book which was sold in thousands and helped to teach the profession the characters of the vaccine vesicle as distinguished from the "mother pustule" of small-pox inoculation with which they were already familiar. The exhibits included the original Kirtland plates lent by Dr. G. W. Collins, who, between thirty and forty years ago, found them on an old bookstall. They were reproduced in the Jenner Number of the BRITISH MEDICAL JOURNAL in 1896, and for convenience the Wellcome Exhibition has placed the reproductions in framed cases so that the whole course of vaccinia and inoculated variola can be contrasted from beginning to end. The differences between the two processes are so great as to be unmistakable.

The Jenner relics and exhibits shown at the house of the Royal Society of Medicine have now been removed to the Wellcome Historical Exhibition, 54a, Wigmore Street, where they will remain on view for a time, along with many articles which were too bulky for conveyance to the special display on the occasion of Sir William Hale-White's address.

MOTOR NOTES FOR MEDICAL MEN.

BY H. MASSAC BUIST.

THE SCOTTISH MAJORITY MOTOR SHOW.

THE Majority Exhibition promoted by the Scottish Motor Trade Association, which was opened by the Duke of York at Kelvin Hall, Glasgow, on January 26th, is, of course, not so representative as those in London or Paris, because the only building available is quite inadequate to serve the purpose. The English and French displays are chiefly manufacturers' exhibitions promoted to afford an opportunity of meeting agents and motor traders from all quarters of the globe. By contrast the Scottish show is primarily a display for the purpose of enabling agents to meet their clients. Hence relatively few manufacturers have taken stands, though the exceptions include Arrol-Johnston, Argyll, Bean, Beardmore, Clement-Talbot, Citroën, Daimler, Darracq, Humber, Lanchester, and Vulcan. There are even two London coachbuilders, each of whom has taken a stand—namely, Barker and Co. and Windover; both display large cars, such as Rolls-Royce and Daimler types, equipped with their special town carriage coachwork. For the rest, the well known manufacturers prefer to be represented on the stands of their various Scottish agents. In some cases this is an advantage, as instance the wide variety of Wolseley, Sunbeam, Chevrolet, Vauxhall, Crossley, Overland, Humber, Standard, Hillman, Austin, Citroën, and other popular types of vehicles illustrated in notable variety by reason of one or other of the leading agents in practically all the big Scottish centres being appointed by these firms; each is showing some particular type. In this manner one Scottish agent is able to assist another.

Even so, however, the space problem is very acute despite the cutting down of the circulating avenues and the ingenious use of odd corners of the building. The reason is not surprising. Apart from the eminently international character of the exhibits, they are not confined merely to passenger cars and accessories for them, but embrace, besides, the largest lorries and the smallest motor cycles. The result is a wide recognition of the fact that, though the temporary building, which is little better than a war time shed, provides greater accommodation than any pre-war exhibition building either in Glasgow or in Edinburgh, nevertheless it is wholly inadequate to the purpose of Scotland's motor exhibition. There is therefore afoot a movement to the end that the Glasgow Corporation should take the lead in securing the erection on the present site of a permanent exhibition building that shall be worthy of the commercial capital of Scotland, and which shall give the facilities so urgently needed for the promotion of various trades in an age in which it is becoming increasingly gainful to promote annual exhibitions of the wares produced by the leading industries.

CHIEFLY CONCERNING THE GAELIC INDUSTRY.

For the visitor to the London motor shows in November there is nothing new in the present exhibition, which closes at Kelvin Hall, Glasgow, on the night of Saturday next, February 3rd. Nor are all the novelties introduced in London to be found there. On the contrary, the display represents approximately half the new classes of vehicles seen in London. Nevertheless, a better selection it would have been almost impossible to make. There are complete novelties in chassis and body construction, such as the Lancia-Lambda model displayed in Kelvin Grove. The Scottish passenger car industry, too, is well represented on various stands by Arrol-Johnston, Argyll (introducing a new 11.4-h.p. single-sleeve valve engined model), Beardmore, Galloway, and Rob Roy cars. One impression the visitor gets is somewhat unexpected—namely, that a greater proportion of the exhibits at this show than at either London or Paris consists of the larger middle size, and even of the largest cars. It is not to be inferred from this, however, that the motor trade in Scotland is concerned in any less proportion with the newer small car movement than is that in the south. It is merely that, having a limited space at disposal, agents for given builders prefer rather to show the most impressive vehicles of those makes in their space than the smaller standardized types. For one thing, this gives a greater element of variety to the display because, generally, the more expensive cars are available in chassis form, whereby the individual coachmaker is enabled to present new ideas in bodywork. Many of the leading agents in Scotland came into the motor business because they were old-established coachbuilders. For the rest, undoubtedly buyers in Scotland are no less interested than those in London in the evolution of small cars standardized with bodies complete. In this connexion the advent of the standardized 11.4-h.p. Citroën chassis, with which the Sahara was crossed, with British-built bodies for passenger road service, is proving of interest. In a larger class, but low in price, is the 23.8-h.p. Treasury rating Dodge car shown on Stand 44 by Messrs. John Croall and Sons, the Edinburgh agents, this being one of the four most remarkable types of cheap cars made by the American industry. The particular examples shown take the form of a five-seater saloon, and of a touring type. But the average medical man will be more interested in the £375 all-steel Dodge coupé; I made trial of it lately, and it proved a quite extraordinary car on the through drive, alike for traffic and in climbing rises. It has three speeds forward; but in practice two only are used, because one invariably starts on the second gear and passes almost immediately into the direct drive if the engine is warm. The electrical engine starter on this car is capable of turning the crankshaft in spirited fashion, with the result that there is no difficulty in getting the engine going in cold weather. The accommodation provided by the coachwork, and the completeness of the equipment, as well as the finish in the matter of window furnishings, and so forth, will repay study on the part of the medical man wanting one of the larger middle-sized classes of coupé. It is not a small car, but a full scale one, though the price is more akin to that of the small classes.

MISCELLANEOUS EXHIBITS.

Dealing in alphabetical order with the exhibits, and omitting the names of the stands on which the various examples are to be found, one notices that the overhead-valve engined Gwynne-Albert types, including the 8-h.p. 2/3-seater and the 11.9-h.p. all-weather models, figure in various parts of the building, as do examples of the 18-h.p. 6-cylinder overhead-valve engined Armstrong-Siddeley type, which has made the most striking performance in R.A.C. certified trials of any vehicle during the last twelve months, the Dewar Trophy having been awarded in respect of one of these performances. Of entirely new cars introduced at Olympia, the 18/50-h.p. 6 cylinder overhead-valve engined Aster chassis is notably low in price, and is the first type made by a firm of over a score of years' experience of specializing on engine production; hence the exhibit is exciting considerable interest. The Austin series is attracting attention by reason of the price of the 12-h.p. and of the 20-h.p. types, and of the novelty of the 7-h.p. two-seater. The Bean doctor's coupé is appealing to business men, too. It is a very serviceable, hardy little car with plangent suspension and four speeds forward, the body accommodation being amply large enough for those of more than average stature, and the controls being easy and on the normal side of the driver—namely, the right. The low price of the 6-cylinder Buick models, and the great improvements made in the coachwork this year, are matter of favourable comment, as is the extraordinary value for money provided in the Chevrolet proposition. The new 12/14-h.p. four-seater Crossley is welcomed as bringing this make within a lower purse range than hitherto, a remark which also applies to the introduction of the new 16-h.p. and 12-h.p. Daimler 6-cylinder models, which are represented with special coachwork on quite an extraordinary number of stands.

NEW TYPES AND FAMILIAR MAKES.

De Dion Bouton and Renault, who from early days have done perhaps more than any other makers, certainly on the Continent, to make motoring a practical proposition for medical men, bring forward their newest models, which are both reduced as to price and, in the former case especially, developed mechanically along lines that bring them quite up to date. The way in which these makes have stood hard use in the past is a great point in recommending them to notice on the present occasion. The very interesting Enfield-Allday car, which made a great reputation by its performances, alike in the hands of the public and in competition, last year is regarded as an outstanding example of the efficient small car class. The Hillman, a pioneer of British small cars, makes a favourable impression by reason of the new 11-h.p. types, numerously represented in Kelvin Hall, being equipped with excellently designed all-weather bodies. The pioneer of the cheap 4-cylinder water-cooled British cars, Humber, this year introduces engines with part overhead and part side

valves; the 11.4-h.p. and the 15.9-h.p. 4-cylinder models are supplemented by a popular 8-h.p. type marketed at £275 complete. By reason of its sweeping series of victories in competition this year, as well as the prices and long proved wearing qualities, the 10/15-h.p. and the 15/20-h.p. Fiat models are proving a great attraction; while the new 6-cylinder type with front-wheel brakes and overhead-valve engine is regarded as a pioneer design of the period and a moderate-priced proposition among the large cars. In the last class the Napier-town carriage and the latest Rolls-Royces constitute outstanding features of the exhibition.

The reduction in price of the 12 h.p. Rover standardized coupé as developed since last season makes it a very attractive proposition; the 8-h.p. model is now introduced with a dickey. The bodywork of the Standard car, a specialty of which is the amplitude of the accommodation, including length of leg room, is being commented on favourably. The increase in the engine size of the 14-h.p., overhead-valve, 4-cylinder Sunbeam renders it even a more remarkably lively car than it was last year, when it had no rivals, while it is proportionately as cheap to buy and economical to run. The new 14-h.p. side-valve engined Vauxhall, now in production, is very interesting; with Princeton touring body the price is £595 only, complete.

A novelty to the Scottish motorist is the 14-h.p. side-valve engined Wolseley car, which is to be described as a family carriage, having the same class of chassis as the luxurious 15-h.p. overhead-valve engined type. The former is very cheap at £525 complete. Likewise the reduction of £90 in the price of the 10-h.p. overhead-valve engined model of this make brings it within the purse range of a class hitherto unable to consider it.

Take it for all in all, therefore, this is an eminently satisfactory exhibition, and one which has so far proved of great service to those interested in motoring north of the Tweed.

England and Wales.

CENTRAL MIDWIVES BOARD.

AT the meeting of the Central Midwives Board for England and Wales held on January 25th, with Sir Francis Champneys in the chair, charges against two midwives were considered. One was cautioned and put under probation for three and six months' reports, and the other was removed from the roll and prohibited from practising in any capacity in connexion with childbirth. Communications were read from the Queen Victoria's Jubilee Institute for Nurses and from the Ministry of Health announcing the re-election, as representatives on the board, of Miss Rosalind Paget by the former institution and of Miss Haydon and Miss Le Geyt by the Ministry.

Business dealt with by the Standing Committee included the following resolution from the local supervising authorities for the county of Southampton, Surrey, Ipswich, Great Yarmouth, and Southend-on-Sea:

> That the Central Midwives Board be urged to consider the desirability of making a rule prohibiting the application or administration by a midwife of any drug (for example, pituitrin or ergot) other than a simple aperient, before the birth of the child, except under the direction, in each case, of a registered medical practitioner.

It was agreed to reply that the Board has always declined to schedule drugs except in so far as stated in Rule E19, and sees no reason to depart from its practice in this respect. A communication was read from the Public Health Committee of the Bethnal Green Borough Council calling attention to the fact that midwives are apparently allowed to perform the minor operation of stitching the perineum without calling in medical aid, and expressing the opinion that midwives should not be permitted to perform this operation. In reply to this the Board stated that it has already expressed the view that any case of ruptured perineum which requires stitching is a case of "serious" rupture within the meaning of Rule E20 (3).

THE LIVERPOOL MEDICAL INSTITUTION.

The annual meeting of the Liverpool Medical Institution, at which the report of the council and the treasurer's accounts were received, took place on January 25th. The total number of members and associates was stated to be 459, which was larger than in any previous year; deaths and resignations numbered 22. It was noteworthy that there was a considerable increase in the number of recently qualified men and women who had joined the Institution. The financial statement was agreed to be satisfactory, notwithstanding the increased expenditure in maintenance. The Endowment Fund, instituted in 1920, which remained permanently open for additions to the funds of the Institution by donation and legacy, amounted to £4,523. Reciprocity had been effected between the library of the Institution, the medical library of Liverpool University, and that of the Tropical School of Medicine, so that members could make use of all three libraries. Dr. Thomas Clarke and Mr. Robert Craig Dun were elected vice-presidents, and the following were elected members of council: Drs. A. Douglas Bigland, Robert A. Hendry, H. Leith Murray, G. F. R. Smith, R. G. Wills, and Frederick P. Wilson, to fill the six vacancies. With the object of bringing the advantages of membership of the institution to all medical practitioners in the area, twenty-five permanent correspondents were appointed by the council to the same number of districts in and around Liverpool.

THE LIVERPOOL CITY CORONER'S REPORT.

During the past year 1,453 cases were reported to the city coroner of Liverpool, inquests being held in 908 cases. Suicides numbered 70, which was the highest number recorded since 1897, when it reached 73; gas poisoning was the method adopted in 13 cases. In 17 non-suicidal cases accidental gas poisoning was found to be the cause of death; excessive drinking accounted for 10 deaths only, less than half the number in 1921. In 1899 the coroner's record of deaths from excessive drinking numbered 242, and during the past eight years the number of similar deaths had very considerably diminished. In the past twenty years the diminution of deaths from suffocation of children (overlaying) has been remarkable. Before 1898 these cases averaged 180 a year; in 1921 only 9 cases came before the coroner, and in 1922 there were 12. As a rule the cases were quite unconnected with alcoholic indulgence, and it would be a matter of interest to ascertain in all such cases whether status lymphaticus was the cause and what the condition of the thymus was. Inquests were held on the deaths of 39 newly born children, and fatal street accidents to the number of 69 came before the coroner.

MANCHESTER ROYAL INFIRMARY.

In the annual report of the Manchester Royal Infirmary the Board of Management directs special attention to the finances, pointing out that annual subscriptions for the past year have been increased by £1,275; actually £1,784 new money was obtained by the canvassers and collectors, but against this sum had to be set withdrawals in consequence of death or other causes. The total ordinary income amounted to £88,037, and the total extraordinary income to £11,332; the total ordinary expenditure amounted to £110,540, and the total extraordinary expenditure to £11,295. The total ordinary income of the Barnes Convalescent Hospital, Cheadle, amounted to £5,397, in addition to the contribution by the Royal Infirmary of £6,352; the total expenditure for the year amounted to £11,749. The income of the Royal Infirmary, with its Central Branch, and the Barnes Convalescent Hospital, excluding legacies and donations for endowment, fell short of the necessary amount by £12,465, and it has been necessary to realize some of the capital available for general purposes. The Infirmary received £10,775 on account of the apportionment of the Government grant of £500,000 to the voluntary hospitals of Great Britain. The enlarged activities of the Committee of the Hospital Sunday Fund resulted in a very appreciable increase in the sum allotted to the Infirmary during the past year, and the creation of the Manchester, Salford, and District Joint Committee of Hospitals and Saturday Fund Representatives was an important step towards the systematic development of collections from working men by way of deductions from wages. An agreement, which was arrived at last April, recorded the determination of the hospitals and the Saturday Fund to work together in order to raise funds to be apportioned on defined and equitable terms. Contributions by patients were £615 less during the year; the decrease is attributed to the prevalent and prolonged unemployment. Contributions from approved societies, on the other hand, make their first appearance in this report. It will be remembered that an audit of the funds of approved societies disclosed a very material surplus, and a portion of this surplus became available for distribution to the voluntary hospitals. The amount received in respect of the maintenance of pensioners showed a large reduction, and it is stated that next year the

amount from this source will be negligible, as practically no pensioners are now being sent for treatment in the Infirmary. When the new infirmary was opened in 1908 accommodation for *x*-ray work was provided in the basement for what was then a comparatively small department; its growth during the past fourteen years justified the decision to provide more room, and two handsome donations made it possible for the department to be re-established, with the most modern equipment, in what was known originally as the Teaching Block. The Board of Management acquired during the year from the Committee of the Manchester and District Radium Institute the research laboratory installed when the institute was accommodated in the Infirmary. Funds are in course of being raised for a new home for nurses, which, when completed, will accommodate 200 persons; the cost, it is estimated, will be approximately £100,000.

Scotland.

Veterinary Science and Public Health.

Dr. Walter Elliot, M.P., Parliamentary Under Secretary to the Scottish Board of Health, delivered an address, entitled "Some aspects of veterinary science in relation to public health," at the annual meeting of the Scottish Metropolitan division of the National Veterinary Medical Association at Edinburgh on January 24th, with Mr. W. W. Peggie, the president, in the chair. Dr. Elliot said that during the war the veterinary profession of Great Britain was responsible for the transport overseas of fifteen million living animals. That no epizoötic had attended so great a movement of animals showed how far veterinary science had gone in grasping the lessons of bacteriology and putting them to practical application. While human medicine was turning very largely to the preventive side, in veterinary medicine, so far, cure had bulked more largely than prevention. The economic loss from animal diseases, resulting in rise in price to the consumer and the weakening of the public health in this country from the excessive cost of the fuel food needed to maintain energies, was one of the immediate aspects in which veterinary science touched the public health of the country. In the twenty years before the entry of live animals was prohibited in this country pleuro-pneumonia and foot-and-mouth disease killed off 800,000 animals, and in the twenty years subsequent only 2,000. That was a triumph for preventive medicine, and a triumph for veterinary science cogently applied by means of legislation.

Glasgow Students' Infirmaries Day.

In aid of the infirmaries and hospitals of Glasgow the students of Glasgow University and of most of the colleges of the city organized a fancy dress procession on January 20th. The procession eventually broke up into collecting parties, which spread over the whole of Glasgow and its suburbs, to form another procession later in the day; in the evening three dances were held. A magazine entitled *Ygorra Special* was published, which consisted mainly of contributions in prose and verse reprinted from the *Glasgow University Magazine*. These many methods of raising money proved highly successful, the total of the day's collection amounting to over £6,800.

Greenock Eye Infirmary.

At the forty-second annual meeting of the Greenock Eye Infirmary on January 25th it was stated that the trustees were strongly of opinion that greater facilities for the treatment of eye diseases were still required, and that it was necessary to initiate a building scheme which would bring the Eye Infirmary up to modern requirements. A scheme for the extension of the Infirmary at a cost of £1,950 had accordingly been framed. During the past year the number of patients attending the dispensary for the first time was 4,001, and the subsequent attendances amounted to 9,411; the daily average was 64.4 patients for the 208 days on which the dispensary was open. Accidents numbering 1,958, occurring principally in the engineering, shipbuilding, and sugar refining industries, had been treated. In the indoor department 217 cases were treated, an increase of fifteen.

Census of Scotland, 1921.

County of Forfar.[1]

The county of Forfar, north of the Firth of Tay, had on the census day a population of 281,417, but this included the city of Dundee, separately reported on. Excluding Dundee, the county inhabitants numbered 116,413. In the decennium there was an apparent decrease of 11.7 per cent., but in reality the decrease was only 2.2 per cent., the difference being due to extension of the boundaries of Dundee several years ago. The male decrease has been 3 per cent. and the female 1.6. From 1801 to 1881 there was a continuous increase, but in the last forty years the total has fallen from 126,121 to 102,737, the fall including the transfer of population to Dundee. Exclusive of Dundee there are seven burghs in the county, the largest being Arbroath (19,496), Montrose (10,979), and Forfar (9,587). The urban population has appreciably diminished since 1881, an exception being Carnoustie, a golfing resort. The rural population is 42,639, and has slightly increased since last census. The parishes number no fewer than 53. Excluding Dundee, the proportion of females to males is 117.8 to 100; the average age of the male population is 30.6 and of the female 33.8. Of children under 15 years, 88.3 per cent. had both parents alive, 6.6 per cent. had lost their father, 3.5 per cent. their mother, and 0.6 per cent. both parents. Of males aged 15 and upwards, 41.3 per cent. were single, 52.3 married, and 6.4 widowed or divorced; the corresponding percentages for females were 45, 42.9, and 12.1. Gaelic speakers numbered 323, all bilingual. Again excluding Dundee, the average number of persons per house was 4, and the number of persons per 100 windowed rooms was 115. Since 1861, when there were 163 persons per 100 rooms, there has been a steady diminution in density. Living in one roomed houses there were 4.9 per cent. of the population, in two-roomed houses 28.1, in three-roomed houses 29.4, and in four-roomed houses 11.5 per cent. Of males aged 12 years and upwards, 90 per cent. were in remunerative occupations, and of females 36.2 per cent. Of occupied persons 19.8 per cent. were employed in agriculture, 15.4 in textile industries, 10.5 in personal service, and 8.7 each were working in metals and in transport and communication.

County of Inverness.[2]

This central Highland county has, with its islands, a larger area than any other county in Scotland, and is exceeded in England only by Yorkshire. Its total population, however, is only 82,455, its maximum of 97,799 having been reached in 1841, since when the tendency has been irregularly downwards. Of the total population 29.2 per cent. is burghal, and 70.8 extra-burghal. Inverness—the capital of the Highlands—had a population of 20,944, an intercensal decrease of 5.7 per cent.; the only other burghs are Fort William (1,913) and Kingussie (1,272). Of the total population of the county, 27,924 was insular, this being less than at any previous census. The largest island, Skye, has 11,031 inhabitants, or less than half its population in 1841; the next largest are Harris, 3,918; South Uist, 3,235; North Uist, 2,579; Barra, 2,180; and Benbecula, 1,116. The total number of inhabited islands is 46, of which 10 (including two lighthouse islets) show an intercensal increase. At the census the average number of persons per house was 4.85, and per 100 windowed rooms 101, being a steady improvement since 1851. Of the total population, 2.1 per cent. lived in one-roomed houses, 15.9 in two-roomed, 25.4 in three-roomed, 14.9 in four-roomed, 12.6 in five-roomed, and 9 per cent. in six-roomed. The proportion of females to 100 males was 109, the average male age being 32.4, and female 34.5. Of children under 15 years 7.7 per cent. had lost their father, 4.4 their mother, and 1.8 both parents. Of the male population aged 15 and upwards, 51.4 per cent. were unmarried, 43 married, and 5.6 widowed or divorced, the corresponding figures for females being 47.9, 38.5, and 13.6 per cent.

Speakers of Gaelic in this county numbered 39,892, or 48.4 per cent. of the population, against 70.9 per cent. in 1881, when the first Gaelic census was taken; by 5.4 per cent of the population Gaelic is the only language spoken. In the islands Gaelic speakers prevail much more than on the mainland, and 16 per cent. of the island population speak Gaelic only, the percentage being very high in childhood,

[1] Thirteenth Census of Scotland, Volume I, Part 17. Price 8s. 2½d. post free: H.M. Stationery Office, 23, Forth Street, Edinburgh.

[2] Vol. I, Part 18. 7s. 2½d. post free. Obtainable as above.

69.2 in the age group 3 to 4, and 22.9 in the age group 5 to 9 years. Of males aged 12 years and upwards, 87.7 per cent., and of females 27.2 per cent., were in remunerative occupations. Of occupied persons in the county of Inverness and its islands 27.6 per cent. were employed in agriculture, 15.2 in personal service, 9.2 in transport and communication, and 7 per cent. in commerce. Fishermen numbered 4.2 per cent.

Correspondence.

SMALL-POX AND VACCINATION IN THE PHILIPPINES.

SIR,—Will you permit me to congratulate Dr. J. C. McVail upon his instructive analysis of small-pox and vaccination in the Philippines, published in the BRITISH MEDICAL JOURNAL (January 27th, p. 158)? With your permission and indulgence I should like to add something about the period which immediately followed the departure from those islands of the Spaniards in 1898.

As a medical officer with the United States troops I served in the Philippines up to 1903, and I returned for a second tour in 1910, and left again in 1913. I only mention these personal items to bring out a point which I regard as very important in this connexion—namely, that vaccination was very successful in the Philippines when performed properly and conscientiously. Before the American occupation there had been an annual small-pox mortality of something like 40,000. I well remember that the natives regarded the disease with about as little fear as we did an ordinary cold, and that in our campaigns we constantly found instances without the slightest attempt having been made at isolation; also, the proportion of natives one saw with pock-marked faces was painfully large.

In 1902, the backbone of the insurrection having been practically broken, and when medical officers could be spared for the work, an energetic vaccination campaign was inaugurated which extended throughout the principal islands. At the same time all discovered cases were isolated.

How well this work succeeded—and this is the true practical demonstration of the value of vaccination in the Philippines—is shown by the statement that "the 19,000 deaths in 1903 fell to 9,000 in 1904, to 4,000 in 1906, to 3,000 in 1910, to 1,000 in 1911, and to a few hundreds annually from 1912 to 1916." Can anyone doubt that this remarkable decline was due to the campaign of vaccination inaugurated in 1902?

Upon my return to the Philippines in 1910, instead of finding almost every other native pock-marked, as I had in my first tour of duty, I rarely saw a face deformed by these unsightly scars among the younger generation—that is, among those who were of the age to have profited by our early vigorous vaccination onslaughts.

But how are we to account for the sudden jump in 1918 to 14,574, and in 1919 to 45,873 deaths? The Rockefeller Foundation survey now being made will no doubt elucidate the matter, but one is inclined to think that in considerable measure changed conditions of government will prove the key to the solution of this mystery. As the islands became more peaceful there was a gradual transfer of government into the hands of the natives themselves, and a consequent withdrawal of Americans, and with them practically all their medical men, military and civilian. The supervision, direction, and execution of vaccination and other sanitary undertakings were assumed by the Filipinos themselves, and one is inclined regretfully to conclude that the work was no longer of a sufficiently high standard to continue the successes obtained by their predecessors.—I am, etc.,

Manchester, Jan. 30th. H. M. COHEN.

NYSTAGMUS.

SIR,—Dr. J. A. Wilson kindly refers (January 27th, p. 171) to a small paper of mine on miners' nystagmus, but he has misunderstood me when I speak of a predisposition to the disease in children. I was not referring to the nystagmus occurring in children, but to the miners' nystagmus that will develop later under appropriate conditions in those predisposed to the complaint.

It is important to distinguish between the various forms of nystagmus.

I. *The vibratory form*, in which the movements have the same to and fro velocity; there are two main varieties:

(1) The rotatory form, from two and a half to six oscillations a second, which, as far as I know, only occurs in miners' nystagmus.

(2) The slow wandering searching movements seen when the eyes are blind or nearly blind.

II. *The resilient form*, in which a comparatively slow movement occurs in one direction, followed by a rapid jerking movement in the opposite direction, or in some cases by a rapid oscillation. This form is seen in some nervous diseases such as disseminated sclerosis, Friedreich's ataxia, as well as in vestibular nystagmus.

Finally, nystagmus may be acquired or congenital (that is, beginning at any rate in very early life); in congenital nystagmus—for example, that due to albinism—the patient never complains of the movements of objects.

Now miners' nystagmus is acquired, is always of the vibratory form, and may be either rotatory or oscillatory in character. It is rarely found except among pitmen, hewers, deputies who have been hewers, and stonemen working underground. But it has been found in ceiling paperers, accountants who use very large ledgers, and others who work in a very good light. My personal feeling is that the exciting cause is, as the late Dr. Snell was always urging, maintaining the eyes for long periods in a strained position (usually obliquely upwards), and that deficiency of light is only a contributory cause. Since only a small percentage of pitmen acquire the disease, and since these, after recovering from all their symptoms on leaving their underground work, will, in my experience, always have a recurrence of the disease on their return to hewing, I contend that ultimately the disease depends upon an idiosyncrasy or a predisposition with which they are born. One may call it a congenital inadequacy of the fixation centre to withstand long-continued strained positions of the eyes, but I have laboured this point elsewhere.—I am, etc.,

Newcastle-upon-Tyne, Jan. 28th. A. S. PERCIVAL.

TURPENTINE OR LEAD POISONING A CAUSE OF PUNCTATE BASOPHILIA.

SIR,—In a letter in your columns (January 27th, p. 170) Dr. F. C. Eve refers to my paper on "The blood as guide to early diagnosis in lead poisoning." His experience does not enable him to dispute or corroborate the truth of my statements, which are inferences from facts stated in the paper. As, however, he suggests that the presence of turpentine (or its substitutes) seriously interferes with diagnosis of plumbism in painters, his eminence as a physician demands consideration of this point.

Dr. Eve states, "It is not generally known that inhalation of turpentine vapour can also cause basophilia indistinguishable from that produced by lead." But surely no one expects that basophilia produced by lead is different from that produced by any other poison or toxin. We cannot distinguish enlargement of the spleen due to malaria from that due to typhoid, but this in no way lessens the importance of splenic enlargement as a sign of disease. As I tried to explain, basophilia means that something is acting injuriously on the marrow, and if this is lead the urine will contain a trace of the metal even in the absence of corroborative symptoms.

In his last sentence Dr. Eve asks for information as to the effect of turpentine vapour in varnish workers, so I infer that he knows nothing personally of its effect in man or animals but only in vegetables. In short, he derives his information from a Blue Book wherein it is stated that in experiments on animals "basophilia staining was found with both turpentine and white lead, and even the animals exposed to zinc oxide and zinc sulphide showed the presence of a few basophils in the blood." In accepting unreservedly this uncorroborated statement, Dr. Eve has forgotten that there is no evidence whatever that it applies to man under working conditions. Till Dr. Eve has investigated the point among the varnish workers at Hull I venture to hope he will accept my statements.—I am, etc.,

London, W., Jan. 28th. ROBERT CRAIG.

THE DIAGNOSIS OF INDEFINITE MASSES IN THE BREAST.

SIR,—The paper by Mr. Duncan Fitzwilliams in your issue of January 20th (p. 94) is such a valuable contribution to the only reliable method of dealing with this type of case—namely, by close co-operation between the clinician and the pathologist—that I venture to make some remarks thereon from the point of view of the histologist.

The problem before the pathologist is not only to diagnose established carcinomata and to estimate the degree of malignancy thereof, but to detect the precancerous stage of chronic mastitis. Now, this cannot be done by any "few minutes" method, even when this is available, as it fortunately seldom is. Careful fixation and the examination of serial paraffin sections are essential for accurate work.

For the purpose of this note I have examined my own records of the last 600 specimens of breast tissue sent for histological examination, and I find that 24 per cent. were examples of chronic mastitis, 10 per cent. precancerous stages, 44 per cent. established carcinomata, 2 per cent. sarcomata, and 20 per cent. non-malignant conditions other than inflammation; nearly all of these were fibro-adenomata, a condition which, as far as we know, does not become cancerous. In other words, in about one-third of the cases which would be roughly diagnosed as chronic mastitis definite precancerous changes were seen.

The main problem for solution in consultation seems to me to be what to do with the histologically precancerous breast. Is there a stage in which removal of the breast alone suffices? Many surgeons, to my knowledge, cut the Gordian knot by performing the radical operation, and it is difficult to raise any valid objection to this from the pathological point of view. They say, in fact, that nowadays the resulting disabling is so slight with the modern technique that it is better to be on the safe side and remove the lymphatic area also. Is this the accepted surgical teaching? Were the advantages of the preliminary operation advocated by Mr. Fitzwilliams, followed by histological examination, more commonly recognized in general practice, I feel sure that there would be fewer deaths from cancer. The practitioner who takes upon himself to decide by inspection and palpation alone that a lump in the breast is not malignant incurs a very great responsibility.—I am, etc.,

A. KNYVETT GORDON, M.B., B.Ch.Cantab.

London, W.C., Jan. 29th.

OCCIPITO-POSTERIOR PRESENTATIONS.

SIR,—I have read with much interest Mr. Comyns Berkeley's address on "Some practical difficulties in obstetrics and gynaecology," as published in the JOURNAL of January 20th (p. 89), and, while I am in entire agreement with most of it, there is one part with which I entirely disagree—namely, his treatment of occipito-posterior presentations.

The treatment he seems to advocate as a routine is manual rotation of the child, and, while one must respect the views of so eminent an authority, I am strongly of opinion that such treatment is both unnecessary and risky. The picture he draws of cases that are not diagnosed or are not rotated manually is to my mind entirely wrong, and its dangers are greatly exaggerated. My experience of these cases is just the reverse, and I believe that they do far better if left alone as far as possible. They are usually associated with uterine inertia, and I believe that the proper course is to treat this by giving sedatives, etc. After a period of rest the uterine contractions become strong; this causes flexion of the head and the occiput rotates forwards. During a fairly extensive experience of such cases in recent years, both in private practice and as medical officer to an institution, I cannot remember a single case in which rotation has not taken place. At times I have applied axis-traction forceps when the head has been down in the vagina and, if it has not rotated previously, it has done so as soon as traction has been applied.

With regard to rupture of the perineum also, my experience does not agree with Mr. Comyns Berkeley's, for I have found that it has been less frequent in such cases than in occipito-anterior cases, probably owing to the fact that the child's head has undergone greater moulding and that the maternal soft parts have had more time to relax. Although such cases frequently last two or three days, I have no experience of children being born in a state of asphyxia or suffering from intracranial injury.

Manual rotation requires skill and is not without its dangers, and I have little doubt that, were it generally adopted, it would mean a considerable increase in the number of cases of sepsis.

Occipito-posterior presentation in my experience occurs in about 20 per cent. of all cases of midwifery, and therefore to advise as a routine practice a procedure which involves such obvious risks is a matter for grave consideration.—I am, etc.,

Wolverhampton, Jan. 28th. W. R. SOMERSET.

TREATMENT OF TUBERCULOSIS OF THE CERVICAL GLANDS.

SIR,—In your issue of November 4th last (p. 858) Dr. John Fraser, in his paper on treatment of tuberculous cervical glands, evidently assigns a most unimportant part to x rays, and would limit this agent to the lymphoid type only. Even Sir Herbert Waterhouse does not favour this treatment apparently, and states that he has never seen a cure by x rays. However, many writers elsewhere are quite convinced of the superiority of such irradiation in treating almost every case to other methods of treatment. Thus Boggs, who has had a very extensive experience in this direction (*Amer. Journ. Med. Sci.*, July, 1921, clxii, 90), sees good reasons for coming to the following conclusions:

1. Radium and the x ray will cure more cases of tuberculous adenitis than any other method. Roentgenotherapy will cure over 90 per cent. of these cases.
2. Surgical treatment is always contraindicated in every case of tuberculous adenitis.
3. Those who still hold to radical operation will find the responsibility hard to shoulder with the ever-increasing recognition of the fact that tuberculous adenitis can be cured without it.
4. Hard fibrous nodules following roentgenotherapy seldom contain any tuberculous foci, but it may be permissible to remove these through a small incision as with a foreign body.

No doubt the failures referred to in the BRITISH MEDICAL JOURNAL may be attributed to rays of insufficient penetration or faulty technique. My own experience is limited, but a patient treated by myself on July 19th last is instructive. Glands had been removed from her neck two years previously, and these had recurred on both sides. As the result of a single irradiation they almost disappeared, although a small superficial gland has since appeared. She has now had a single larger dose and it is expected that she will be free from further trouble. Incidentally the ugly scar due to the operation has become soft and supple and scarcely noticeable.—I am, etc.,

Melbourne, Dec. 20th, 1922. H. FLECKER, F.R.C.S.

HOSPITAL POLICY.

SIR,—Dr. C. E. S. Flemming's letter (January 20th, p. 129) calls for brief reply. Patients are sent to hospital, not because they cannot be accommodated or maintained at home, but because they cannot be treated there. If while in hospital they are able to pay only for that which they must anyhow obtain when at home, and which it is no function of the staff to provide, their claim upon the latter is not impaired. If, however, they can, in addition, pay something for treatment, the position is radically changed, and lay boards will readily appreciate the distinction, which is not "arbitrary" but logical. What these boards assuredly will not recognize is an "honorary staff" who reject a pauper because he is too poor, and a man who, while he is in hospital, scrapes together a shilling a week, because he is too rich. Would Dr. Flemming himself approach any hospital board with such a proposal? So far from being more defensible and acceptable than our plan, as he maintains, no evidence is produced that a single member of the Council or Hospitals Committee, save Dr. Clarke, whose position is exceptional at Leicester, has dared to bring his policy before the lay board of his own or of any general hospital, or would stand any chance of success if he did. Why should we be called upon to do what they lack either courage or skill to achieve themselves? Let them set the example, and report results, or abandon a vain project.

As regards the bookkeeping difficulties anticipated by Dr. Flemming, he is presumably unaware that the policy I advocate has been working, with the aid of almoners, quite successfully in the Bristol hospitals for a year and a half. Further, at Leicester, where the plan he commends has, in the absence of almoners, been equally successful, the bookkeeping entailed is far more complicated than at Bristol, because contributors to the staff fund are there graded into three classes, each of which furnishes a different percentage to the fund.

In fact, their plan is in no way more simple than ours. It is evident, therefore, that the fears of Dr. Flemming in regard to bookkeeping are as groundless as those of the Council in respect to manipulation of funds. I have not so far encountered any objections to our plan which will bear examination, whereas the dangers attaching to his proposal are so obvious and insurmountable that scarcely anyone has attempted to overcome them.—I am, etc.,

Chichester, Jan. 28th. G. C. GARRATT.

PENAL DISCIPLINE.

SIR,—Since I have been travelling and have missed Sir Wemyss Grant-Wilson's somewhat belated criticisms (BRITISH MEDICAL JOURNAL, December 16th, 1922) on points in my book, *Penal Discipline*, perhaps you will be good enough to allow me this somewhat belated, but earliest possible, reply.

Sir Wemyss's first point is to contradict my statement that the Borstal girls were put in irons. He does not appear to know that the use of the instrument of restraint known as the "body belt" is officially and rightly classed as irons, as the prisoner's hands are restrained in ordinary steel handcuffs. My figures are from the official returns of girls put in irons, and the body belt used during my service was mainly of my own design. This form of restraint was suggested by me some years ago, as a modification of the more severe forms of restraint which were applied to violent women in local prisons. The ordinary handcuffs, worn for hours, or days, or nights, are a cruel form of restraint, especially for stout women and girls. They contract and fix the chest, make deep breathing difficult, and certainly never calm an excited woman, who has every need of sufficient oxygen. They render sleep almost impossible and compress the axillary and mammary tissues painfully. They give rise to filthy scenes.

The belt is put on loosely round the hips so that the hands in the handcuffs passed through the belt hang by the sides. The belt can be rotated through a quarter of a circle, and one hand can just reach the mouth, so that prisoners can attend to their own needs. They cannot, however, injure themselves or anyone else. This restraint is, however, provocative of more excitement and is not to be defended in any conditions now prevailing in prisons. I discouraged its use on the dreadful cases we used to have in local prisons, and many matrons learnt to do without it. Its use had decreased in local prisons almost to vanishing point during my service, when it was adopted *de novo* in Borstal institutions. But for a number of years Borstal institutions also managed without it.

I have never seen any change in the character of inmates committed either during or after the war which could possibly have made this form of restraint necessary or advisable. The majority of girls who broke out did so under the irritation caused by report and punishment. So well is this form of outbreak known to occur among those who suffer from hysteria, as also the tendency to self-mutilation, that it is the rule, after an award of punishment, to return the prisoner to a cleared cell. This form of outbreak hardly ever happens now in local prisons, and ought not to happen in a Borstal institution.

As regards the girl restrained eight times who later "committed suicide" by setting fire to herself at Rampton, although Sir Wemyss is "asking for it," I am not the person to tell your readers her history. Why does he not do so himself? I will merely remind him that she was a girl of inferior surroundings and education to other inmates and that she had had a very good record in a reformatory school. She showed no signs of hysteria until she came under penal discipline. When under penal discipline she became unmanageable, she was certified as "feeble-minded" or its equivalent, and sent to Rampton. Here she committed the act which caused her death. She is an outstanding instance on my side of the argument, which I refrained from quoting myself.

Girls who have led "irregular lives" are not necessarily excitable under detention, if suitably treated, and I cannot agree with Sir Wemyss Grant-Wilson that their restraint is ever a "necessity."

In the sense that I have used the word "repression" in my book it stands for an unconscious process. It cannot be "learnt" by any of us. The *direction of instinct* is a very different matter, can be learnt, and does not lead to nervous explosion. But it can never be taught under penal discipline, nor through restraining an hysteric as an angry and dangerous animal when once repression has done its work.—I am, etc.,

Küsnacht, Zürich, Jan. 22nd. MARY GORDON.

FEES IN COURT CASES.

SIR,—In the London papers of January 19th a case is reported in which a medical witness, on entering the witness box, stated that he had been subpoenaed but had not had his fees guaranteed. Counsel immediately asked him: "Are you a Scotsman?" and later the judge is reported to have said: "He seems to me to be about as greedy a doctor as I have come across. He must have his fees."

One cannot be long in practice without feeling the inconvenience of court cases which interfere with one's work and generally involve some pecuniary loss also. Unless the doctor is to be exploited, there are many points in the legal side of medical practice which must be learnt, although not taught at hospital; and it is surely very unfair that invidious remarks should be made in such a case as this, in which *the fees had to be allowed*, and in which the witness was correct in asking that they should be, immediately on entering the box.—I am, etc.,

Sevenoaks, Jan. 24th. J. FINLAY ALEXANDER.

VITAMIN CONTENT OF CERTAIN PROPRIETARY PREPARATIONS.

SIR,—May I be allowed space for a brief reply to the letter by Miss K. H. Coward and Professor Clark in your issue of January 27th (p. 171)? I would like to repeat that what I wrote was that their article in your issue of January 6th was "apt to produce a misleading impression" in regard to Virol. This it does, in my view, by classing Virol with preparations whose advertised claims in regard to vitamin concentration were not supported by the results of their investigation, and by the concluding statement that "no advantage is to be gained by trying to obtain these substances in the form of drugs"; no such attempt having been made in the case of Virol, which is a food.—I am, etc.,

ARTHUR E. CANNEY,
London, Jan. 29th. Managing Director, Virol Limited.

STATE HOSPITALS.

SIR,—I am anxious to profit by all *bona fide* criticism of Poor Law hospitals, so I have been considering the remarks of Viscount Cave as reported briefly in your issue of January 27th (p. 169). He speaks of State hospitals "where there was no one, apart from the patient's relatives, whose duty and pleasure it was to see him from day to day, to watch over his comfort, and give him that personal attention which meant so much to a sick person." Can you suggest what official of a general hospital Lord Cave had in mind?

Connected with this hospital there are visiting and resident doctors, a matron, assistant matrons, sisters, nurses, probationers, chaplain, and welfare visitors. It is the duty of these officers to give the patients "constant, thoughtful daily care," and I think they perform their duty fairly well. In addition members of the board and various philanthropic ladies pay frequent visits and contribute to the comfort of the patients.

I cannot find the blank in the staff that Lord Cave refers to.—I am, etc.,

HENRY H. MACWILLIAM,
Senior Medical Officer, Walton Infirmary, Liverpool.
Liverpool, Jan. 29th.

AT the International Exhibition of Photography, Optics, and Cinematography, to be held at Turin in May and June next, prizes will be given for various kinds of films—among others, films of scientific subjects.

THE announcement is made from Canada that 2,715 claims have already been received for the prize of 100,000 dollars offered by Lord Atholstan of Montreal for the discovery of a cure for cancer; claims have come from forty-one different countries. It is pointed out, however, that claimants must satisfy a recognized medical faculty or leading medical society in his or her own country first that there is some scientific basis to justify the experimental investigation of the professed cure, and that any cases said to have been successfully treated were in fact cases of cancer.

Obituary.

JOHN WILLIAM BALLANTYNE, M.D., F.R.C.P.E., F.R.S.E.,
Physician Royal Maternity Hospital, Edinburgh, and Ante-natal Department; Lecturer on Midwifery and Gynaecology to Women Students, University of Edinburgh.

THE death of Dr. J. W. Ballantyne in Edinburgh on January 23rd came as a shock to his colleagues, few of whom knew of his illness. About ten days previously he had been compelled to take to his bed with one of his periodic attacks of influenza, but there were no symptoms to cause any anxiety until the day before his death. Very suddenly he was seized with violent abdominal pain, which laparotomy within two hours proved to be due to a ruptured appendix. Never very robust in the last few years, and weakened by ten days of illness, the scales were from the first heavily loaded against his recovery, and he died within twenty-four hours of the operation. In him the world loses a man posterity will regard as one of the makers of modern medicine, and the Edinburgh school one of its most renowned ornaments.

John William Ballantyne was born in June, 1861, at Eskbank, Midlothian, where his father was a nurseryman and seedsman. After a period at Bonnington Park School, Peebles, he passed to George Watson's College, Edinburgh, where he completed his school education. He passed through the medical curriculum at Edinburgh University, and graduated M.B., C.M. in 1883, winning as a fitting crown to a distinguished undergraduate career the Buchan Scholarship in Midwifery and Gynaecology. This scholarship carried with it the privilege of acting as house-surgeon to the University Ward for Diseases of Women, then under the charge of Professor A. R. Simpson, and the association with Simpson thus begun was to prove one of the strongest formative elements in Ballantyne's life and career. From the Royal Infirmary he passed to the Royal Maternity Hospital during Simpson's term, and after some months spent in visiting the medical schools of Berlin, Munich, and Göttingen he was appointed by the Professor as both his private and his university assistant. Ballantyne became by examination M.R.C.P.Edin. in 1887, and in the following year was elected to the Fellowship. In 1889 he graduated M.D. with a thesis on "Some anatomical and pathological conditions of the newborn infant in their relation to obstetrics," for which he was awarded a Gold Medal and the Gunning-Simpson Prize in Midwifery.

DR. J. W. BALLANTYNE.
Photograph by] [*Swan Watson, Edinburgh.*

After five years as University assistant Ballantyne ventured forth into the Extramural School as lecturer on midwifery and diseases of women in the School of Medicine of the Royal Colleges. For twenty-six years he taught faithfully and successfully both men and latterly women students, until in 1916, on the admission of women to the University classes in medicine, he was called back to the academic fold as lecturer on midwifery to women students. This appointment he held with acceptance to the time of his death.

In 1900 Ballantyne was appointed assistant physician to the Royal Maternity Hospital, and four years later he succeeded his friend, the late David Berry Hart, as physician. In this capacity he served for the full period of fifteen years, retiring in 1919. Meantime in 1901 the Hamilton Bed was endowed in the hospital for the "purpose of the treatment of the diseases peculiar to, or accidental during, pregnancy." (Previously only women whose confinements were imminent were admissible to the hospital.) This event, which may be taken as marking the beginning of that care of the expectant mother which Ballantyne did so much to develop and popularize, was the response on the part of a generous and anonymous donor to Ballantyne's urgent and telling plea published in this JOURNAL. Before long the single bed had to be expanded to a ward, as doctors and nurses and even patients themselves gradually in increasing numbers realized the value of pre-maternity care. Ballantyne fostered this part of the hospital work with enthusiasm, and organized a system by which women in the "district," suffering from diseases incident to pregnancy, were visited by specially trained nurses, and if necessary brought into the hospital. The work developed rapidly, and in April, 1915, the first pre-maternity and infant welfare centre was started in the hospital under the name of "Infant and pregnancy consultations for expectant mothers." In 1917 the ante-natal department of the hospital came under the administrative and financial care of the municipality, and Dr. Ballantyne was appointed "extra-physician in charge of the ante-natal department." Two years later a department for the treatment of venereal disease in pregnancy and labour was started, and to the charge of this also Dr. Ballantyne was appointed by the city authorities. In addition to these purely professional duties in the Maternity Hospital, Dr. Ballantyne interested himself deeply in all its affairs. For two years (1908–10) he acted as its honorary secretary, and subsequently became secretary to the medical board with a seat on the board of management, thus forming a direct link between directors and staff.

The promise of the researches embodied in his M.D. thesis matured in the publication between 1892 and 1895 of his two volumes on *Diseases of the Foetus*. Inevitably he found himself, in his search for causes, thrust back to the study of earlier stages of ante-natal life. Embryonic conditions were therefore dealt with in his *Teratogenesis* (1897), and included in his classic volumes on *Ante-natal Pathology and Hygiene* (1902–4). In all this Ballantyne was doing work of a pioneer type in that he not merely collected laboriously and summarized all the work previously done on the subject, but attempted to produce order out of chaos and establish a really scientific classification of, and nomenclature for, the innumerable varieties of embryonic and foetal deformities and diseases. In 1902 the Royal College of Physicians of Edinburgh recognized this in the award to him of the Cullen Prize "for the greatest benefit to practical medicine in the previous four years."

Elected a Fellow of the Edinburgh Obstetrical Society in 1883, Ballantyne passed through the various offices of secretary, editor of *Transactions*, and vice-president, and was elected to the presidential chair in 1906–7. From the first he was a prolific contributor of scientific papers, and a fluent participator in the discussions of the Society; to his industry it is indebted for the complete index of the *Transactions* of its first twenty-one years, by which means many interesting, valuable, and historical papers have been rendered more accessible.

Ballantyne's writings soon rendered his name familiar to workers in midwifery and gynaecology, not only in his own country, but all over the world. This was seen in the honours which he received. He was invited to act as examiner in Aberdeen University in 1895–99, in Edinburgh University 1901–5, and at his death he held similar appointments in the Universities of Glasgow and Liverpool. He was an honorary Fellow of the Glasgow Obstetrical and Gynaecological Society and of the American Association of Obstetricians and Gynecologists; an honorary member of

the American Child Hygiene Association and of the Societa Scientifica Protectora da Infancia (Brazil). In 1910 he was chosen Vice-President of the Section of Obstetrics and Gynaecology at the Annual Meeting of the British Medical Association in London. Besides the professional activities, Ballantyne took an active interest in all that affected the welfare of his school. He was one of the first to see the value and importance of post-graduate teaching, and was convener of the committee to which the establishment of the now famous post-graduate courses in Edinburgh was attributable. He was also an active working member of the General Council of the University.

The British Medical Association held an important place in his interest, and characteristically he took his full share of the local work as a member of the Branch Council and of the Executive Committee of the Division. For some years up to his death he had acted as Edinburgh correspondent to this JOURNAL, and in other ways he contributed to it to an extent which only the Editor could reveal. Those, however, who could recognize his unsigned writings will recall with pleasure many of his short annotations on, for example, "Medical Terms in the New English Dictionary," and on many other antiquarian and philological points touching upon medicine.

Ballantyne's industry was phenomenal. Probably a week-day never passed without his writing something for publication, and his total output would do credit to a journalist who had no other interests or occupation. He was the author of some ten scientific volumes, including besides those already mentioned *Diseases of Infancy*, 1891; *Essentials of Obstetrics*, 1904; *Essentials of Gynaecology*, 1906; and *Expectant Motherhood*, 1914. He edited two issues of Green's *Encyclopaedia Medica;* of the same publisher's *Dictionary of Medicine;* and of the *Quinquennium of Medicine and Surgery*. He founded and edited during the two years of its existence the journal *Teratologia*. He acted as subeditor for Scotland of the *International Clinics*, and in addition to all this he published between four and five hundred articles in medical and other journals.

Moreover, his writing was habitually on a high level of literary excellence. His sentences were poured out with not merely fluency and ease of style, but at times with the cumulative force of a torrent, sparkling with a freshness and variety of apt and illuminating imagery that is most unusual in medical papers. Doubtless this was due in no small measure to his extraordinarily wide reading and the possession of a wonderfully retentive memory. His mind was a positive encyclopaedia which he could, as it were, open at the desired page on a moment's notice. This extraordinary breadth of culture marked him as the natural successor to Berry Hart in the office of librarian to the Royal College of Physicians. This office he adorned, and he enjoyed to the full the privilege of supervising the affairs of that fine collection of old and new books. His own private library was also a reflection of his mind and of the immense scope of his knowledge. His rooms were packed with books on every conceivable subject—medicine, history, biblical study, ethics—and a noble collection of the classics of many languages and of different eras. He is said to have had some eight editions of Boswell's *Life of Johnson*—a man whom he resembled in his omnivorous reading and insatiable thirst for knowledge. Lighter literature he did not eschew either, and when in the vein he could write admirably in a facetious style. Perhaps the most outstanding example of this is his inaugural address to the Edinburgh Obstetrical Society in 1906 on the "Future of obstetrics," in which he humorously recorded an imaginary conversation with the President of the Society in 1940 (its centenary year). Like a positive Jules Verne, he describes many imaginary changes in the obstetrical world of that day, several of which are now accomplished facts or well on the way to be so. So successfully did he combine instruction with light humour that this paper became one of the best known of his writings, was translated into several foreign languages, and proved a most effective instrument of propaganda in favour of ante-natal care.

This almost uncanny power of prevision was one of Ballantyne's striking characteristics. By nature and temperament he was a scholar rather than a practitioner. He lived in the main outside the dust and turmoil of the arena of practice, and so was perhaps enabled to see farther and more clearly into the future than those who are harassed and burdened by the cares of practice. Worldly advancement, moreover, was not his ambition: his aim was service to his fellows, and in that he spent himself lavishly.

Ballantyne's greatest claim to fame and remembrance will undoubtedly prove to be his pioneer work in seeking to establish ante-natal pathology on a scientific basis, and still more the practical application of that in the foundation of clinics for expectant mothers. It is instructive to observe how rich a harvest in practical benefit to humanity is now beginning to be reaped from the apparently arid and stony fields in which for so long he ploughed a lonely furrow. For years when he first began to preach the value of ante-natal supervision and care he was as "a voice crying in the wilderness," but by sheer persistence he won a hearing, and a great deal of the modern development of midwifery along preventive lines is the direct outcome of his labours.

No account, however brief, of Dr. Ballantyne's life could possibly be regarded as even remotely adequate which did not touch reverently upon that aspect of his life which bulked so largely in his own mind—namely, his religion. At an impressionable age he was, as we have seen, brought into close association with Professor A. R. Simpson, for whom he conceived a boundless admiration and affection. Simpson's well known evangelicalism could not fail to make a deep and lasting impression on such an ardent and faithful disciple. Moreover, this was the period of Henry Drummond's brief but brilliant lay ministry among the students of Edinburgh University, and Ballantyne was one of those who early fell under the spell of his vivid spirituality. It is, then, small wonder that he became a man of deep and sincere religious life. His faith was childlike in its perfect simplicity and in its immanence in all the innumerable activities of his life. It produced in him a beautiful charity of disposition which enabled him to suffer long and yet remain kind, and it endowed him with the quiet confidence and endurance in the face of a lack of recognition in his early years, which we can now see to have been necessary to the fulfilment of his destined work. In a man of such colossal industry it was inevitable that his religious life should manifest itself in activity as well as in quiet, contemplative study. Only a few of the outlets for this activity can be mentioned. During his tenure of office at the Royal Maternity Hospital he conducted a short service for the patients every Sunday afternoon; and he loved nothing better than addressing Brotherhood meetings. He served his church also loyally in more ordinary paths. For many years he was an elder in St. George's U.F. Church under his cherished friends the late Dr. Alexander Whyte and Dr. John Kelman, and he even found time to act as session clerk. For many years he was a director of the Edinburgh Medical Missionary Society, and from 1907 to 1912 was its president, taking an active share in its work and contributing liberally to its support. Much of his time and thought was occupied by the cause of foreign missions, and he served on various committees of the U.F. Church dealing with them. It is credibly said that he never allowed a Sunday to pass without writing a letter of encouragement and friendship to one or more foreign missionaries. The unselfish thoughtfulness of such an act speaks volumes.

In 1889 Dr. Ballantyne married Miss Emily Rosa Mathew, daughter of the late Mr. George Mathew, Worsted Lodge, Cambridgeshire. No children were born to them, and his wife predeceased him in 1914.

On Friday, January 26th, he was buried in the beautiful Dean Cemetery, Edinburgh, in presence of a very large number of friends and colleagues, representatives of the multifarious interests of a life of ceaseless service.

R. W. J.

We are indebted to Sir HALLIDAY CROOM, emeritus professor of midwifery in the University of Edinburgh, for the following tribute to Dr. Ballantyne:

In common with my colleagues I received a very great shock on hearing of the unexpected death of my old friend, John William Ballantyne, as the result of gangrenous appendicitis. He was one of my earliest pupils in the Extra-mural School here, and he and I have been associated together in the Obstetrical Society, in the Maternity Hospital, and for the last seventeen years as colleagues in the University. Very early in his career he identified himself with the department of obstetrics, becoming assistant and university tutor with Sir Alexander Simpson, and to this branch of medicine he had devoted himself exclusively ever since.

All through his life the striking feature about him has been his endless perseverance and concentration on anything he undertook, and this is conspicuously borne out in the characteristic enthusiasm with which he devoted himself to the somewhat obscure and unremunerative work in teratology,

which subject his writings and communications are exhaustive; indeed, his enthusiasm carried him so far that he published a journal on teratology. The whole question of monsters was an open field to him, and his minute and accurate knowledge of their classification and anatomical relation was absolutely unique.

It is to his endless credit and to that of the school to which he belonged that he laid the foundations of ante-natal pathology, and he stood out, *facile princeps*, as the greatest living authority on this subject; as a matter of fact he developed the whole department and brought it nearly to perfection in Edinburgh. He had entire charge of the ante-natal clinic in the maternity hospital, and the devotion, care, and time that he bestowed on that clinic only those who were his immediate colleagues can ever know. In the successful development of this clinic he was frequently brought into very delicate relationships with his colleagues, and his infinite tact and judgement were recognized by all of us in the hospital.

His powers of application and devotion to work were colossal. My association with him during the last seventeen years was very close and intimate, as we met every day, lecturing as he did to the women students, who were entirely under his care as far as obstetrics were concerned, and we shared class assistants, tutors, servants, diagrams, museum, and apparatus in common. During all those years we never had a misunderstanding or friction of any kind whatever, and I shall never forget our daily interviews in the University retiring room. Of these causeries I retain a vivid recollection. They were not always medical, being more often political, social, or religious; but this thing I will say, that I never remember Ballantyne saying or hinting an unkind thing of any human being. No one could be in daily association with him as long as I was without recognizing that he seemed removed from the petty cares of this world, and in his company one felt lifted into higher environment. He never cultivated practice very much, and was at his best always in his library, where he spent long hours daily. His literary output was stupendous. Apart from his original work in teratology and ante-natal and obstetrical research, the mere editing of two editions of the *Encyclopaedia Medica* was an undertaking sufficient to have occupied half a lifetime.

He brought permanent and world-wide reputation to the Edinburgh School to an extent that is not realized either by the public or the practitioners of medicine, but I can safely say that no foreign visitor ever came to Edinburgh who did not wish specially to be introduced to and know Ballantyne personally. He led a very simple life, very seldom dined out, was a member of no club, and social entertainments did not appeal to him very much. It is characteristic of him that at one time he was a great smoker of strong and unattractive tobacco, and one day while walking with a friend was taxed on the subject; he threw his pipe and pouch of tobacco over the dyke and never smoked again.

His integrity of character and abounding humanity were the special features of his life. *Integer vitae scelerisque purus.* He shone specially as a secretary: his minutes were always monuments of accuracy and care, and to that work he grudged neither time nor trouble. Religion was to him a natural secretion, an integral part of his being; like the circulation of the blood, it performed its function without attracting any special attention on his part to itself.

Ballantyne was a really learned man; he had intellect, energy, and literary skill, and these gifts he loyally and ungrudgingly gave in the service of his school of medicine and mankind. I shall ever remember him as a kind and conscientious colleague and a considerate friend.

Dr. B. P. WATSON, professor of midwifery and diseases of women in the University of Edinburgh, has been good enough to send the following:

The medical profession the world over mourns the death of Dr. J. W. Ballantyne. By his voluminous writing he was known to everyone who has any pretence to special knowledge in midwifery and gynaecology, and his persistent efforts on behalf of the expectant mother and his constant advocacy of adequate ante-natal care brought his name prominently before every practitioner. When he began his work in ante-natal pathology he was regarded by many as a pedant engaged in researches which could never have any practical clinical application. It is one of the happiest thoughts of him, now that he has gone, that he lived to see his work appreciated at its full value, both from the purely scientific standpoint and from the point of view of its practical application. I know that this was an intense satisfaction to him, and that he felt it was ample reward for his many years of hard and otherwise unremunerative scientific work.

To those of us who knew the man as well as the scientist his loss is great indeed. In his younger days he was a keen golfer and tennis player, but these sports he sacrificed for the sake of his work, and for many years he found his only relaxation among his books. His library was large; it contained the best books in all branches of literature, and he knew every one. There was no apparent arrangement, but he could put his hand on any book or hunt out any article at a moment's notice. Many of us, when engaged in research, have availed ourselves of his unique knowledge of medical literature. It did not seem to matter how obscure the reference, or how long since the article appeared—Ballantyne would be sure to know of it and be able to produce it.

He was loved by his students, and by none more than the women, whom he taught first in the Extramural School and latterly in the University. After they graduated many of them corresponded with him and put before him for solution the difficulties they met with in practice or in the mission fields of India or China where so many of them went. He loved to think that so many of his students had taken up missionary work, for he had that simple faith which made him throughout his life a true Christian. His relations with his colleagues were always of the pleasantest nature. I shall never forget his kindness to me personally. I knew him first as my teacher in the Maternity Hospital, and his were the first congratulations cabled to me on my appointment to the chair of midwifery in Edinburgh. The Edinburgh Medical School can ill spare such a man at this time, for he was one of those who was recognized everywhere as a leader in midwifery, and so helped to maintain the tradition of which we are so proud.

Dr. JAMES YOUNG, assistant physician, Royal Maternity Hospital, Edinburgh, with which institution Dr. Ballantyne was so long connected, writes:

The death of J. W. Ballantyne has removed from us one of the noblest of minds and one of the masters of modern medicine. Ballantyne's claim to recognition amongst the makers of medicine rests on two solid foundations—his investigations on ante-natal pathology and his pioneer efforts to direct attention to the value of ante-natal supervision. It is probably right to say that he was the founder of the *science* of ante-natal pathology, and his two large volumes remain to the present day the classics in this subject. The dominating passion of his later years had its natural origin in these preliminary scientific labours, for by them he was led to a recognition of the immense wastage of child life that could be prevented by proper supervision of the carrying woman. His was an imagination that kindled into flame at the thought of big service to his fellows. During the past twenty years his life was illumined by this thought, and his untiring advocacy by speech and writing of the need and place of the ante-natal clinic carried conviction almost as much by his transparent sincerity and high sense of duty as by the brilliance of his exposition. For long he faced apathy and even opposition, but the efforts of his detractors only served to increase his zeal, and beyond the days of temporary hostility and indifference he kept a vision of the permanent assurance of his work.

Of Ballantyne as a man it is difficult for those of us who loved him to speak adequately. I have known him for nearly twenty years, and during the latter part I have grown to value his friendship as one of the richest things in life. Charity, sincerity, and simplicity, linked with a firm religious faith, were the secrets underlying a life of unusual charm and sweetness. I have seen him hurt by unjust criticism, but I have never known him to utter one uncharitable word, and I believe his soul was unable to harbour an uncharitable thought. To outsiders he might seem to possess small vanities, but those who knew and loved him saw them rather as the little self-protections against the world which a heart childlike in its simplicity and more sensitive than rugged had all unconsciously woven round itself.

He was an untiring writer. Much that came from his pen bears the stamp of the master. Much has probably small permanent value and stands merely as the record of a mind teeming with ideas and consumed with the desire of expression. Ballantyne's religion was the driving force of his life. He loved to tell of the help he derived from prayer in any of life's great decisions, and into his work he carried the spirit of the true missionary.

Dr. F. J. BROWNE, who worked with Dr. Ballantyne in the ante-natal department of the Edinburgh Royal Maternity Hospital, writes:

The death of our beloved chief has come as a stunning blow, overwhelming in its tragic unexpectedness. At the moment the sense of personal sorrow and loss overshadows all, and it is difficult to write or even to think of aught else. On Monday morning, January 15th, he had performed a Caesarean section with his usual skill (he had never lost a patient after this operation) although even then he was not feeling well. How little we thought, as he afterwards said his usual cheery "good-bye," that he had gone out for the last time from the department that had meant so much to him, which he had organized and staffed, and of which we know he was so proud. When we think of him it is not yet as the great pioneer of pre-natal care, though we knew of his greatness, and had a jealous care for it, confident that the day would surely come when tardy but universal recognition would be his. We think of him rather as he came at his morning and evening visits—enthusiastic, kindly, simple; then his ward round, when no patient was overlooked, but each received an encouraging word; and afterwards the almost daily conference with his staff on matters of administration and details of treatment, at which the suggestions of even his most junior resident were received with consideration; and then those more confidential, because more leisurely, evening talks after the work of the clinic was over for the day. Much was said then that cannot be told. Many were the confidences freely exchanged; wise the advice freely given; but amidst it all there was no unkind or uncharitable word spoken by him, nor would he allow it without gentle reproof in others. For actions or words that appeared somewhat harsh or unkind he invariably sought and found some extenuating circumstance. This, I think, is the memory of those conversations that will most remain. Lately he was much gratified by the appreciation of his work that was shown on many occasions by his colleagues and in the medical press of this and other countries, and about a month ago said to me that it appeared to him now that if he was remembered it would be by his work on ante-natal care rather than by his earlier work in teratology.

Those who were most intimate with him are aware how little even all his scientific work and voluminous writings circumscribed his activities and how varied was his interest and profound his learning. He loved old books and rare editions, of which his own library contained many examples. How he found time to indulge these tastes must seem a mystery until it is known that 6 a.m. in winter and summer was a usual hour for commencing work. From then till 10 a.m. was done most of the work of the *Encyclopaedia Medica*, the ninth volume of the new edition of which he had almost completed at the time of his death. Only a few nights previous to his fatal illness I found him at a late visit hilarious as a schoolboy over the parody by Kipling and Graves of the fifth book of the *Odes* of Horace. He could never be prevailed upon to take a holiday, and for the last two weeks we had thought he looked tired. Once or twice, too, he had recently complained that he was feeling the strain of his literary work.

When all this is written, how bald it seems, and how little it expresses the vivid, strong, and varied personality that we were privileged to know! What were his outstanding characteristics as he appeared to us? Simplicity, kindness, intense energy and enthusiasm, cheerfulness, industry, thoroughness. He had the power of eliciting in an unusual degree the affection as well as the respect of those who were privileged with his friendship. To them especially the loss of his guiding hand appears irreparable, but his memory will remain an inspiration. And they believe that he has lit such a torch as shall never be put out.

HUNTER F. TOD, M.A., M.D.CANTAB., F.R.C.S.ENG.,

Surgeon to the Ear, Nose, and Throat Department, London Hospital.

WE regret to announce the death, on January 23rd, of Mr. Hunter Finlay Tod, the distinguished aural surgeon, at the age of 52, after a long and painful illness gallantly endured. Hunter Tod was the second son of the late Mr. David Tod, J.P., of Eastwood Park and Hartfield, Renfrewshire. He was born in 1871, and was educated at Clifton College, Trinity College, Cambridge, and the London Hospital. He graduated B.A. (with first-class honours in natural science) at Cambridge in 1892, M.A., and M.B., B.Ch. in 1896, and M.D. in 1907. He gained a surgical scholarship at the London Hospital in 1895, in 1896 he took the diplomas of M.R.C.S.Eng. and L.R.C.P.Lond., and in 1898 became F.R.C.S.Eng. He spent a year on the Continent studying in the special clinics of Berlin, Vienna, Leipzig, and Halle, working for a considerable period under Killian and Jensen in Berlin. After holding the post of resident medical officer at the Throat Hospital, Golden Square, he was appointed surgeon to the throat and ear department of Paddington Green Children's Hospital, and subsequently assistant aural surgeon to the London Hospital.

At the time of his death Hunter Tod was senior surgeon to the ear, nose, and throat department of the London Hospital; he had held this appointment for twenty years, and his term of office had recently been extended for another five years. He was lecturer on aural surgery at the London Hospital Medical College, which owed much to him for his keenness in organizing and improving the teaching of that subject. He was also consulting surgeon to the West Herts Hospital. He was president for the present year, and a former vice-president, of the Section of Otology of the Royal Society of Medicine, and was vice-president in 1910 of the Section of Otology at the Annual Meeting of the British Medical Association. He was formerly examiner in otology at the Royal Army Medical College, and had been a member of the Special Aural Board of the Ministry of Pensions.

He was the author of many contributions to the literature of otology, the published results of his experience of intracranial complications being particularly noteworthy. His excellent little book on *Diseases of the Ear* was issued in the Oxford Medical Manual Series in 1907, and went into several editions; he contributed special sections on "Diseases of the external ear and tympanic membrane" to *Allbutt's System of Medicine*, and on "Operations upon the ear" to *Burghard's System of Surgery*.

Hunter Tod was of small size and light build, but had played half-back at rugby football for his college at Cambridge, and, as a student, for the London Hospital. To the end he was excellent company, and his more intimate friends, who knew him affectionately as "Jinks," loved the air of jesting self-assurance which he habitually assumed towards them. He was a man of confident and optimistic outlook and a surgeon of great patience and gentleness. As a consultant his opinion was widely sought and highly valued, and his skill as an operator, particularly in the performance of mastoid operations, was recognized and admired by his colleagues. It has been stated, on good authority, that he was the first surgeon in this country to perform the now everyday operation of true submucous resection of the nasal septum.

He leaves a widow, who is the eldest daughter of Dr. Stanley Rendall, of Aix-les-Bains, and one son and three daughters. A memorial service was held on January 26th at St. Marylebone Parish Church, which was attended by a large number of his colleagues and friends.

A colleague at the London Hospital writes: Hunter Tod was connected with the London Hospital for close on thirty years, having come there as a student on leaving Cambridge. After a short time on the assistant staff he served as senior aural surgeon for over twenty years, and there also he died. He was thus in every sense a "London" man, and his affection for the hospital and his loyalty were amongst the mainsprings of his life. His zeal for his own special department was unbounded, and he was tireless in his efforts to extend its scope and promote its efficiency. Indeed, his incessant demands for an increase of beds became almost a standing joke between him and his colleagues when the members of the staff sat in council. Others are more competent to speak of his skill as an operator in his chosen branch; but as one who only came in professional contact with him over cases on the boundary line between medicine and surgery, the writer can testify to the general trustworthiness of his opinion and the soundness of his judgement. Yet it is probable that he did not always get full credit for his extensive and accurate knowledge. Like one of the characters in *The Wrong Box*, he thought that there was "nothing like a little judicious levity." This humorous way of looking at things, along with a certain flippancy of manner, at times tended to conceal from those who did not know him well his great reserves of clinical experience. But it was just these characteristics which most endeared him to his friends. He derived from his Scottish birth a dry sense of humour and a gift of delicate sarcasm, while his English education had smoothed away the surface asperities apt to be met with in those who come from north

of the Tweed. Like many little men, Hunter Tod had a great and courageous heart, and those who were privileged to witness the fortitude with which he awaited the slow-footed approach of inevitable death recognized that he was indeed—in the words inscribed on the wreath laid on his grave by his colleagues—"a very gallant gentleman," whose untimely removal has cast a gloom over the hospital he so greatly loved.

JOHN DUNBAR DICKSON, M.D., M.CH., R.U.I.,

Marlow, Bucks.

DEEPLY regretted by all who knew him, Dr. Dickson passed peacefully away at Marlow on January 13th; he had been failing in health for the previous twelve months.

Dr. Dickson was born in Belfast on January 22nd, 1853, and received his medical education at Queen's College, Belfast, and the Royal College of Surgeons, Dublin; he graduated M.D. and M.Ch. in 1876. Before settling in Marlow in 1880 he held a resident appointment at the Royal Bucks Hospital, Aylesbury. Throughout his many years of practice in Marlow his kindliness, geniality, and keen sense of humour won for him the regard and love of all with whom he was brought in contact. He was mainly instrumental in obtaining for Marlow an excellent and well appointed cottage hospital, to the interests of which both he and Mrs. Dickson devoted much time and work.

Dr. Dickson held the appointments of medical officer of health to the Marlow Urban and to the Wycombe and Hambleden Rural District Councils; during the years 1919 and 1920 he filled the office of president of the Reading Pathological Society. Notwithstanding his many professional duties he took an active part in local affairs, as justice of the peace, as a governor of the Borlase School, captain of the fire brigade, and during the late war as a member of the local war committee and of the military tribunal.

A sportsman *ad unguem*, in his earlier years he represented Marlow on the river and in the cricket and football fields; he was also a keen fisherman.

He married in 1883 Emily Margaret, daughter of Mr. David Carson of Glasgow, by whom he had four sons; he lost the youngest, a midshipman, in the *Hawke*, when that vessel was torpedoed early in the war; two of his older sons served with distinction in the field.

His funeral, attended by a very large number of friends, took place on January 16th, at Marlow Parish Church, when he was laid to rest on the very bank of the stream he loved so well.

The peaceful stream glides on
Through the vale and under the hill;
But, oh for the touch of a vanished hand,
And the sound of a voice that is still.

J. A. P. P.

JOSHUA JOHN COX, O.B.E., M.D.EDIN.,

Consulting Physician, Northern Hospital, Manchester.

DR. JOSHUA JOHN COX, O.B.E., Major R.A.M.C.(T.F.), of Buxton and Manchester, died suddenly on January 17th, at Largo House, Largo, Fife, the residence of his brother, at the age of 66, and was buried on January 20th, at Burbage Church, Buxton. He was educated at Edinburgh University, where he took the first prize in surgery in 1872, and in midwifery and diseases of children in 1873; he graduated M.B. in 1875, and M.D. in 1881. He also took the L.R.C.P.Edin. in 1875, and the F.R.C.S.Edin. in 1880. He was for many years in general practice at Eccles and later practised as a consulting physician in Manchester; before the outbreak of war he had gone to reside at Buxton, although he continued to practise as a physician in Manchester. He had been physician, and at the time of his death was consulting physician, to the Manchester Northern Hospital for Women and Children; to the Victoria Dental Hospital, Manchester; to the Manchester and Salford Convalescent Homes; to the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded; and to the Buxton Cottage Hospital, which was built largely through his influence, and of which he was also chairman. He took a commission as major R.A.M.C.(T.F.) in the 2nd Western (Manchester) General Hospital in January, 1909. At the beginning of the war he was deputed to be chief medical officer in charge of recruiting in Manchester. After the passage of the Compulsory Service Act, and the formation all over the country of recruiting medical boards, he served as president of Manchester No. 1 Medical Board. When, towards the end of 1917, recruiting was transferred from military to civil medical boards, Dr. Cox was appointed to superintend these boards in Lancashire as Commissioner of Medical Services for the North-West Region. On January 1st, 1919, he received the O.B.E. He was for long a member of the British Medical Association, and was vice-chairman of the Manchester Central Division of the Association in 1904 and 1906, and chairman in 1905. When the Association met in Manchester in 1902 he filled the post of vice-chairman of the Section of Diseases of Children. He was a former president of the Manchester Medical Society, of the Manchester Clinical and Pathological Societies, and of the Royal Medical Society, Edinburgh; he was a Fellow of the Royal Society of Medicine and of the Edinburgh Obstetrical Society. He had varied interests outside his profession, and was a keen sportsman, an ardent fisherman and shot. He leaves a widow and three married daughters.

Universities and Colleges.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary Comitia of the Royal College of Physicians of London was held on Thursday, January 25th, at 5 p.m., the President, Sir Humphry Rolleston, being in the chair.

After a report from the Censors Board it was resolved, in accordance with By-law CXC:

That David Arnold Chaning Pearce be declared to be no lon er a Licentiate of the College; that he forfeit all the rights and privileges of a Licentiate; and that his name be expunged from the Lis. of Licentiates—during the pleasure of the College.

Members.

The following candidates, having passed the required examinations, were admitted as Members:

Christopher Howard Andrewes, M.D.Lond., L.R.C.P., Edwin Baylis Ash, M.B.Birm., L.R.C.P., Lindsey Willett Batten, M.B.Camb., L.R.C.P., Winfred Kelsey Beaman, D.S.O., L.R.C.P., Gerald Tyler Burke, M.D.Lond., L.R.C.P., Edwin George Bleakley Calvert, M.D. Belfast, Maurice Coburn, M.D.Lond., L.R.C.P., Lawrence Paul Garrod, M.B.Camb., L.R.C.P., Frank Solomon Hansman, M.B. Sydney, Henry Lewis Heimann, M.D.Lond., L.R.C.P., Kenneth Stuart Hetzel, M.B.Adel., Thomas Arthur Hughes, M.D.Dublin, Claude Blaxland Levick, M.B.Sydney, Michael Harold Southwick, M.B.Melb., John Oscar Thomas, M.D.Lond., L.R.C.P.

Licentiates.

Licences to practise physic were granted to the following ninety-one candidates:

W. F. T. Adams, H. S. Allen, C. C. P. Anning, C. H. Atkinson, A. Barker, L. J. Bendit, J. C. Bennett, J. Bernstien, F. E. G. Bonnalie, C. C. Bradsworth, *Marjorie Broadbent, B. Broman, *Mary G. Brown, *Violet W. Brown, T. B. Butcher, G. H. Calger, *Dorothy M. Campbell-Meiklejohn, *Marjorie F. Cartledge, F. S. Colman, *Annie E. Connan, I. H. Cowan, B. A. Crook, *Dorothy A. D. Cropper, J. E. D. Crozier, D. B. D'Alwis, *Mary L. Davies, V. R. J. de Boissière, *Gertrude M. de Souza, W. Edwards, J. M. Evans, R. H. Evans, R. R. Foote, H. S. Forbes, L. Forman, C. A. H. Franklin, *Martha Griffith, P. Hack, *Margaret C. N. Hadley, *Kathleen M. D. Harding, C. F. Harris, G. Henly, N. G. Hill, R. J. Hooker, M. Jackson, J. Jenson, H. V. Jessop, R. Keene, E. C. K. Keaderdine, J. P. Kies, *Kathleen H. B. King, L. Lawn, C. P. Ledward, J. T. Linklater, J. H. M. Lloyd, *A. N. Macbeth-Morland, H. J. Malkin, *Grace E. Mizen, M. S. H. Mody, G. O. Montgomery, G. S. Morgan, L. Morgenstern, H. V. Morlock, R. M. Morris, H. Moud, E. S. Page, *Ruth N. Parker-Gray, *Emily C. N. Paterson, H. J. Plowright, J. A. L. Roberts, B. W. Roffey, M. Rose, R. Salib, Eva M. Sansom, H. B. Shaw, A. G. Silver, *Helen O. Skelton, *Agnes B. Smith, F. E. Smith, R. M. Somerset, H. J. H. Spreadbury, H. A. Suria', G. B. Tait, G. Tate, G. D. Thomson, T. R. Thomson, B. M. Tracey, W. R. Ward, H. W. M. Williams, R. N. P. Wilson, *Marguerite A. Xavier, J. Yates.

* Under the Medical Act, 1876.

Special Diplomas.

Diplomas in special subjects were granted jointly with the Royal College of Surgeons as follows:

PUBLIC HEALTH.—W. McH. Binning, M. C. Brereton, H. Brookman, Alida C. Burt, G. W. Cheater, D. Clyde, E. Cotter, A. J. Cronin, J. A. A. Duncan, G. D. English, Dorothy W. Gowers, C. M. Gwilliam, G. Habgood, C. E. E. Herington, A. N. Kingsbury, T. McLuskey, J. W. Mann, K. Nain, C. C. Okell, R. R. Scott, J. Singh, R. M. Soames, Elsie Stansfeld, E. W. L. Thomas.

TROPICAL MEDICINE AND HYGIENE.—W. T. Benson, T. L. Bomford, O. T. Brosius, C. A. Calder G. Covell, B. C. Dasgupta, Helen Gregory, W. H. Hamilton, H. A. Hewat, M. J. Holgate, K. Nain, C. G. Pandit, C. J. H. Sharp.

OPHTHALMIC MEDICINE AND SURGERY.—C. Abbu, C. G. Berge, G. E. Breen, G. A. Brookes, D. D. Evans, N. K. Gangriwala, J. Keyms, E. J. McGuinness, M. J. Moher, R. J. G. A. Pistar, A. McK. Reid, M. D. Thakore, J. D. Woolworth.

PSYCHOLOGICAL MEDICINE.—Mary R. Barkas, S. Blanton, N. H. Clubwala, J. Gifford, G. W. Greene, F. H. Guppy, E. L. Hopkins, P. D. Hunter, P. McLuskie, N. W. Markwell, N. Roberts, W. D. Sammon, C. E. A. Shepherd.

Council and Committees.

Dr. W. S. Lazarus-Barlow, Sir John Broadbent, Dr. T. W. Eden, and Sir George Newman were elected Councillors, on the nomination of the Council, to take the places of Drs. Lauriston Shaw, Copeman, Chaplin, and Blacker, who retired by rotation.

Dr. Herbert Spencer and Dr. Raymond Crawfurd were elected members of the Library Committee, on the nomination of the Council, to take the places of the late Sir Norman Moore and the late Sir James Galloway.

Appointment of Delegates.

Sir William Hale-White and Dr. R. A. Young were appointed as representatives to a conference summoned by the University of London concerning the courses of instruction provided by medical schools.

Permission was granted to the editor of the *Lancet* to reproduce the portraits of certain physicians in a publication intended to celebrate the centenary of that journal.

The President was appointed a delegate to attend the celebration, on June 5th to 7th next, of the 800th anniversary of the foundation of St. Bartholomew's Hospital.

Dr. R. O. Moon was appointed to represent the College at the celebration of the centenary of Jenner by the Académie de Médecine.

Sir Francis Champneys was appointed, on the nomination of the Council, a representative of the College on the Central Midwives Board.

Lecturers.

The President announced that the Council has appointed Lieut.-Colonel William Glen Liston, C.I.E., M.D., to deliver the Milroy lectures in 1924.

On the recommendation of the President it was resolved that the appointment of the Lloyd-Roberts lecturer be made by the Censors Board.

The Committee of Management reported that Mr. H. J. Waring had acted as Visitor of the Board at the Examination of the Egyptian School of Medicine, Cairo, in January.

Regulations for the D.P.H.

The Committee of Management presented new regulations for the D.P.H.England, in conformity with the resolutions and rules framed by the General Medical Council, to come into force on January 1st, 1924. The Committee presented a report criticizing the action of the General Medical Council.

The report pointed out that in the new resolutions and rules of the General Medical Council no provision is made for candidates in the army to receive instruction in the duties of a medical officer of health under a sanitary staff officer in the Royal Army Medical Corps having charge of an Army Corps, District, Command, or Division, such as was formerly provided for in the regulations. The report continued:

"The committee have already called the attention of the General Medical Council to the hardship to officers of the R.A.M.C. in being deprived of this opportunity of studying for the diploma, when, at the request of that Council, the Committee expressed their views on the advisability of revising the regulations. Further, it appears that under the new regulations, the instruction under a sanitary officer in India, in the British Dominions and the Colonies will be no longer acceptable, because, according to the interpretation of the new rules by the General Medical Council, the whole course of training under a medical officer of health must be given under one and the same officer in one and the same area, and must cover all the subjects mentioned in Section II, paragraph II 4 (*a*) to (*f*), and it is improbable that these conditions can be fulfilled elsewhere than in this country. The Committee are of opinion that the new regulations cause a distinct hardship to officers in the R.A.M.C. and to Indian and Colonial doctors, and they recommend that the Royal Colleges should again draw the attention of the General Medical Council to this undesirable aspect of the new regulations."

The report was approved.

UNIVERSITY OF OXFORD.

THE remaining degree days in the present term are Saturday, February 17th, Thursday, March 8th, and Saturday, March 24th.

Examinations for Scholarships in Natural Science are announced for the following dates: March 13th, at Keble College; March 20th, at Queen's College; March 20th, at Merton, Exeter, New, Brasenose, Corpus Christi, and Wadham Colleges.

Robert d'E court Atkinson, B.A., has been elected to a Research Fellowship at Hertford College.

At a congregation held on January 25th, the degree of bachelor of medicine (B.M.) was conferred on D. S. Davies.

A pamphlet of 16 pages entitled "Information concerning the school of medicine, medical degrees and diplomas, and post-graduate medical study and research," is issued by the Clarendon Press and sold by the Clarendon Press Depository, 116, High Street, Oxford, price 1s. net. Leaflets containing full details of the examinations and regulations for the Diploma in Public Health and the Diploma in Ophthalmology can be obtained by applying to the Dean of the Faculty, University Museum, Oxford.

UNIVERSITY OF CAMBRIDGE.

UNDER the recent arrangement for the interchange of teachers Dr. Friedrich Zschokke, professor of zoology and comparative anatomy in the University of Basle, has commenced a course of sixteen lectures on the European fauna. The corresponding exchange lectures at Basle will be given next term by Mr. J. T. Saunders, demonstrator of animal morphology.

At a congregation held on January 26th the degrees of Bachelor of Medicine and Surgery (M.B., B.Ch.) were conferred on N. G. Thomson.

UNIVERSITY OF LONDON.

A MEETING of the Senate was held on January 24th, when the Vice-Chancellor (Mr. H. J. Waring) was in the chair.

Sir Sydney Russell-Wells, M.P., was reappointed representative of the University on the General Medical Council for 1923-24.

The following doctorates were conferred:

D.SC. IN EMBRYOLOGY.—G. S. Sansom, University College, for a thesis entitled: Early Development and Placentation in *Arvicola (microtus) amphibius*, with special reference to the Origin of Placental Giant Cells.

D.SC. IN PHYSIOLOGY.—G. V. Anrep, M.D., University College, for a thesis entitled: The Metabolism of the Submaxillary Gland.

IN some copies of the BRITISH MEDICAL JOURNAL of December 30th, 1922, p. 1282, the asterisk did not show against the name of Miss Edith M. Hall, indicating that she had been awarded the University medal in Branch IV (Midwifery and Diseases of Women) of the M.D. examination of the University of London.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examination indicated:

FINAL EXAMINATION.—*Medicine:* J. S. Bizzett, E. T. Hall, J. J. Mann, J. H. Murrell, R. M'D. M'Kinnon, C. C. L. Spurring. *Midwifery:* J. S. Bizzett, D. G. Coutts, J. J. Mann, J. H. Murrell, C. C. L. Spurring. *Medical Jurisprudence and Public Health:* J. C. Colvin, D. G. Coutts, J. G. Currie, J. Dey, D. K. Fisher, M. Goldberg, C. M. Hinds, O. ap Vychan Jones, R. F. Kerr, L. A. Moody, W. Melrose, A. Menzies, J. P. T. Mills, J. G. O'Kieffe, G. M. Rose, J. J. du Pré le Roux, R. D. Scougi, H. Sen.

The following candidates, having passed the Final Examination, were admitted L.R.C.P.E., L.R.C.S.E., and L.R.F.P.and S.G.: D. Gold, T. C. H. Neil, C. J. B. Fox, J. M. Crombie, E. Brazao, Annie F. Perry, Hilda Page, Johannes J. Malan, Katherine M. Cel an-Jones, B. M'Laughlin, J. E. Rodrigo, I. S. R. Bain, el Saled et Goharg Sheir.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have passed in the subjects indicated:

SURGERY.—G. G. Brown, M. P. Parker, R. F. A. Philpott, H. M. White.
MEDICINE.—*B. Basuny, †L. A. Daly.
FORENSIC MEDICINE.—H. J. Adams, B. Basuny, C. S. Laurence.
MIDWIFERY.—B. Hart, W. M. Jones, C. S. Laurence.
* Section I. † Section II.

The diploma of the Society has been granted to Messrs. G. G. Brown, M. P. Parker, and R. F. A. Philpott.

Medico-Legal.

AN ACTION FOR NEGLIGENCE.

A CASE of importance to the medical profession came before Mr. Justice Rowlatt and a special jury last week at Somerset Assizes.

The plaintiff, Miss Coleberd, a cheesemaker, of South Barrow, claimed damages against Dr. P. A. Colmer of Yeovil, alleging negligence in setting a fractured forearm. It was alleged that defendant failed to set the bones in apposition, that he set them out of alignment, and did not take reasonable care to see that they were set so as to unite. In consequence there was marked displacement of the lower fragments, and the bones failed to join properly. An operation subsequently became necessary, at which the bones had to be sawn through and reset with plates and screws. It was complained that Dr. Colmer neglected to make an *x*-ray examination of the arm, and that plaintiff's recovery had been unduly and unnecessarily prolonged. Compensation for loss of employment, and special damages of £21 18s., were claimed. The defence was that there had been no negligence.

Mr. Rayner Goddard conducted plaintiff's case, and defendant was represented by Mr. J. A. Hawke, K.C., with whom was Mr. G. D. Roberts (instructed by Messrs. Hempson, solicitors to the Medical Defence Union).

Mr. Goddard, in opening, said it was alleged that by reason of the defendant's neglect of what were in some respects elementary precautions, plaintiff, a young woman of 26 with her living to get, suffered from a broken arm for some three or four months—a much longer period than would have been the case had proper treatment been applied at an earlier date. The accident occurred on June 9th, 1921, and both bones of the left forearm were fractured. Dr. Colmer was sent for, and, after applying a temporary splint, removed Miss Coleberd to his surgery, where he set the arm. There were no complications, and it appeared to be a simple fracture. Altogether she paid sixteen visits to Dr. Colmer, and at the end of the sixth week, when the splint was taken off, it was obvious that the broken bones had not united. The complaint was that he neglected to have an *x*-ray photograph taken in order that he might see the condition of the bones after the setting. The bones did not unite, so after a consultation with a surgeon in Yeovil she was sent to Bournemouth. There she consulted a surgeon, who had the arm *x* ray photographed, the girl having then to undergo two operations. She had now a fair arm, although she was unable to do anything like hard work.

Plaintiff gave evidence, and in cross-examination denied that she had jolted the injured arm after it had been set.

Mr. A. H. Vernon, senior surgeon to the Bournemouth hospital, stated that plaintiff consulted him and brought *x*-ray photographs, which disclosed the bones overlapping at the fracture. From his observation they must have been in that position for some three months. Judging from what he found, proper treatment had not been afforded the arm. It was a difficult fracture to set, and in his opinion nothing could have been more helpful than the taking of an *x*-ray photograph to see that the setting was satisfactory; he regarded that as a routine practice nowadays. When the arm did not mend he thought it amounted to a lack of reasonable care not to have taken an *x*-ray photograph. He did not agree that Miss Coleberd was a bad bone-forming subject.

Mr. Maitland Scott, assistant surgeon to the Bournemouth hospital, gave evidence supporting that of Mr. Vernon, and added that he did not think it likely the bones could have been put straight by manipulation. In his opinion the deformity had only been of one month's duration.

Mr. Hawke, addressing the jury, said it had been suggested that Dr. Colmer did not know his job to the extent expected of the ordinary medical practitioner. He had a large practice in Yeovil, which he had carried on for a great many years, after succeeding his father, and there had never been a breath of suggestion against his professional character or competence. Expert evidence would be called on the question of *x*-ray examination, also to show that the girl was unusual in her absence of bone-making capacity.

Dr. Colmer gave evidence describing his treatment of the case, and stating that he did not consider an *x*-ray examination necessary after he had set the arm. The girl's home was ten miles from Yeovil, and he suggested she should be attended by the doctor in her own locality, but she expressed preference to remain under his treatment. On July 22nd he found there had been no union of the bones—the first case of non-union in that position he had had in the whole of his professional experience. The girl was in a bad condition of health, and he prescribed a tonic to improve her general health and bone-making capacity. On August 19th when he again removed the splints the bones seemed to be united, and he told plaintiff what a straight arm she had. He instructed her to keep the arm in a sling, and get some massage treatment. On August 27th the arm was in good condition, but on September 9th, when next he saw Miss Coleberd, he found there was a good deal of swelling in the tissue around the seat of the fracture. It suggested to him that there had been some violence. Feeling the bones with his fingers he found they were not in alignment, and he reapplied the splints after putting them in alignment. In cross-examination he denied that plaintiff had ever raised the question of an *x*-ray examination. There was an *x*-ray apparatus at Yeovil hospital, but he did not think it necessary to put plaintiff to the expense of undergoing that examination, which would have cost two guineas.

Mr. H. R. Unwin, assistant surgeon to the Yeovil hospital, stated that he examined plaintiff's arm on September 19th in consultation with Dr. Colmer and found it perfectly straight, but there was no union of the bones. He considered the treatment had been correct, but suggested that the ends of the bones should be rubbed together, thus encouraging union. He also agreed with Dr. Colmer that the girl should endeavour to regain better general health before any operation was carried out.

A nurse gave evidence that she was engaged to give massage and did so for eleven days between August 28th and September 8th. During this time she noticed nothing abnormal. On September 9th she got the patient to see her doctor because deformity and swelling had suddenly appeared.

Mr. T. H. Openshaw, C.B., consulting surgeon to the London Hospital, stated that he was the first surgeon to use the *x* rays when introduced into this country. It was not usual to take an *x*-ray photograph of a limb in the case of an ordinary simple fracture of this nature. One could get the bones in perfect alignment without using the *x* rays for examination. It was perfectly correct treatment to advise massage, as Dr. Colmer had done in this case. He saw no reason why Drs. Colmer and Unwin, in consultation, could not find by manipulation whether the bones were straight. If plaintiff had been operated upon immediately she might not have got such a good arm as she had at present. His theory was that she was a bad bone-maker.

Mr. Goddard: Do you say an *x*-ray examination was not necessary in this case?

Mr. Openshaw: Yes. It would have prevented this case being brought. You would not have a leg to stand on if there had been an *x*-ray examination by the defendant.

Mr. Richard Warren of Weston-super-Mare, formerly surgeon to the London Hospital and examiner in surgery at the Universities of Oxford and Cambridge, stated that after hearing the evidence he could not criticize Dr. Colmer's treatment in any way up to the time the girl went to the seaside.

His Lordship, summing up after counsel had addressed the jury, said the patient of an ordinary general practitioner was entitled to expect fair skill from her doctor, but not such great skill as one might expect from a specialist in Wimpole Street. The jury must not suppose because this had been an unfortunate case, and there had not been such a cure as in most fractures of the kind, that the doctor ought to be mulcted in damages. If a doctor made a mistake, and it was not due to want of reasonable skill and care, that was a misfortune. One could not expect infallibility in doctors more than in any other professional men. It was for the jury to say whether they thought Dr. Colmer had been guilty of negligence. If they found for the plaintiff it was a case for moderate damages.

After an hour's retirement the jury returned a verdict for the defendant, and judgement was entered accordingly.

Medical News.

AT a joint meeting of the Darlington Division of the British Medical Association and the North of England Branch of the Veterinary Association to be held at the Greenbank Hospital, Darlington, on Friday, February 9th, at 4 p.m., there will be a discussion on tuberculosis in milk. It will not be confined to disease, but will also cover the conditions to which milk is subject before it reaches the consumer. Professor Gofton, the chief veterinary officer for Edinburgh, will put forward the veterinary view, and the medical aspects will be presented by one of the local tuberculosis officers.

THE announcement that Sir Richard Douglas Powell, consulting physician to the Middlesex Hospital, will give an Emeritus lecture on Friday, February 2nd, reaches us late. The lecture, which will deal with aortic regurgitant disease regarded specially from a prognostic and life assurance point of view, will be given at 3 p.m.

THE Fellowship of Medicine and Post-Graduate Medical Association has arranged a course of seven practical lecture-demonstrations on certain diseases of children, to be held during February at the Children's Clinic, Western General Dispensary, Cosway Street, N.W., on Tuesdays and Fridays, at 5 p.m. The first on February 13th and the last one on March 6th will be given by Sir William Bayliss and the other five by Dr. Bernard Myers, whose concluding lecture will be devoted to "The nervous child as seen in general practice." The fee for the course is one guinea; copies of the syllabus can be obtained from the Secretary to the Fellowship of Medicine, 1, Wimpole Street, W.1.

THE meetings of the Zoological Society of London for scientific business will be resumed on Tuesday, February 6th, at 5.30 p.m. Attention is called to the great increase in the cost of paper and printing, which renders it necessary that papers should be condensed and limited as far as possible to the description of new results. Dr. R. W. A. Salmond has been appointed honorary radiologist to the Society.

THE Dental Board of the United Kingdom announces that the third series of the prescribed examination under the Dentists Act, 1921, will be held during April next. The closing dates for entries are as follows: for examination at London, March 6th; at Manchester, March 21st; at Edinburgh, March 30th. Notices will be sent to those whose names have been entered on the list of candidates. It is important for those whose names are entered on the list of practitioners of less than five years' standing to bear in mind that there will only be two more opportunities for them to present themselves—namely, April and July of this year. Letters relating to this subject should be addressed to the Secretary for Examinations, 44, Hallam Street, W.1.

REPORTS received from the Red Cross in Russia indicate that there are now some 3,000,000 cases of malaria in the republic west of the Ural mountains. In Georgia one-half of the population are affected, and at the village of Sambourtale, near Tiflis, two-thirds of the total population have died of malaria. Many of the malaria cases are malignant, and the disease is particularly prevalent in the Volga region, where the famine has been so severe, and in the Caucasus. The Russian Medical Aid Committee has received an urgent request for quinine in large quantities, and would be glad to receive contributions addressed to Mr. A. Baker, Treasurer, Medical Aid Committee, 68, Lincoln's Inn Fields, London, W.C.2.

COLONEL R. H. ELLIOT'S book on *Tropical Ophthalmology* has been translated into French by Dr. Coutela of Paris and Dr. Morras of Rabat. The volume is published by Masson et Cie. Dr. Francisco Maria Fernandez has also prepared a Spanish translation, which is published by the Twentieth Century Press, Havana.

THE Royal Society of Medicine announces in our advertisement columns that the William Gibson Research Scholarship for medical women will be awarded in June next to a qualified medical woman selected by the Scholarship Committee. The scholarship is for £250 for two years. Further particulars can be obtained on application to the Secretary of the Society, 1, Wimpole Street, W.1.

Dr. John Craig Crawford and Dr. Josephine Letitia Denny Fairfield, both of the Middle Temple, were called to the Bar on January 26th.

A WINDOW in memory of the late Dr. Hayes Newington has been erected by the members of his family in the Ticehurst Parish Church, Sussex.

SIR ROBERT ARMSTRONG-JONES, C.B.E., M.D., has been appointed a Deputy Lieutenant of the county of London.

A BANQUET was held recently in Paris to celebrate the jubilee of the well known Paris medical journal *Progrès Médical*; Professor Richet presided, and the history of the journal was reviewed by the present editors, Dr. Loeper and Dr. Genty.

THE death is announced of C. P. Goerz, the founder of the firm of optical instrument makers known especially for its field glasses and cameras.

THE firm of William Heinemann announces in our advertisement columns to-day a plan, new to this country, of introducing its medical and surgical publications to country practitioners who, because they reside far from booksellers' shops and medical libraries, have no opportunity of seeing the latest medical books. It will meet also the difficulty encountered by practitioners in towns, owing to the fact that ordinary booksellers are indisposed to stock medical books. The plan is to offer general practitioners the opportunity of seeing the medical books of the firm on approval for a week without any expense to them.

A GIFT of over 100,000 dollars from an American lady, Mrs. Guggenheim, has enabled the Vienna faculty of medicine to open new and well furnished quarters for students of medicine who are unable to work at home owing to lack of fuel and books. A condition of the gift is that absolute freedom from racial and religious prejudice should prevail.

A CONGRESS of Social Hygiene will be held in Paris from December 18th to 23rd, 1923.

Letters, Notes, and Answers.

As, owing to printing difficulties, the JOURNAL *must be sent to press earlier than hitherto, it is essential that communications intended for the current issue should be received by the first post on Tuesday, and lengthy documents on Monday.*

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C.2, on receipt of proof.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL.

THE postal address of the BRITISH MEDICAL ASSOCIATION and BRITISH MEDICAL JOURNAL is 429, Strand, London, W.C.2. The telegraphic addresses are:

1. EDITOR of the BRITISH MEDICAL JOURNAL, *Aitiology, Westrand, London*; telephone, 2630, Gerrard.
2. FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London*; telephone, 2630, Gerrard.
3. MEDICAL SECRETARY, *Medisecra, Westrand, London*; telephone, 2630, Gerrard.

The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin (telegrams: *Bacillus, Dublin*; telephone, 4737, Dublin), and of the Scottish Office, 6, Rutland Square, Edinburgh (telegrams: *Associate, Edinburgh*; telephone, 4361, Central).

QUERIES AND ANSWERS.

INCOME TAX.

"E. C." holds a salaried appointment and has claimed to deduct £25 expended on coaching and university fees for the Diploma in Psychological Medicine.

*** The claim is not good in law; the expense cannot rightly be said to be incurred wholly, exclusively and necessarily *in the performance* of the duties of the appointment, although they were incurred in connexion with the professional work. There is some parallel between such expenditure and the capital outlay incurred in getting together or improving the equipment of a general practitioner.

"C. S." inquires (1) what is the legal authority dealing with the right of deducting expenses from public salaries, and (2) whether pay earned as a locumtenent is "casual" and therefore not assessable?

*** (1) Schedule E, Rule 9 of the Income Tax Act, 1918, provides that expenses incurred wholly, exclusively, and necessarily in the performance of the duties of the office or employment can be deducted. There has, so far as we are aware, been no case before the courts dealing in this connexion with subscriptions to professional associations or payments for professional periodicals. (2) Tax is chargeable in respect of "every employment by retainer in any character whatever, whether such retainer shall be annual or for a longer or shorter period," etc., etc. Case II, Schedule D, now transferred to Schedule E under the Finance Act, 1922. We are of opinion that "casual" earnings as a locumtenent are chargeable to tax.

LETTERS, NOTES, ETC.

DR. C. E. BEGG (Bath) writes to state that the respiratory sounds can be well heard through a jacket of antiphlogistine spread a quarter of an inch thick on gamgee tissue and applied direct to the skin. The fact is, he thinks, not well known.

"WHAT ABOUT RIBS?"

IN one of his essays Mr. E. V. Lucas says that when he goes on a railway journey he makes a point of selecting from the bookstall periodicals which have nothing in common with the ordinary routine of his life, and in which he finds much amusement and refreshment. Among his favourites are the domestic journals published in the interests of music-hall artists. So, too, when the eye is perhaps a little fatigued by the serious medical journals of many nations, comic relief is found sometimes in such periodicals as *The Abolitionist* (an antivivisection organ) or *The Vaccination Inquirer*. To them must now be added another periodical, *The Journal of Osteopathy*, which though apparently not new, is new to us. Passing over the "professional cards" (among which one notes a specialist in "orificial surgery") and an advertisement of *Right Living*, "the aristocrat of osteopathic literature"—which has a cover that "looks like leather," and "will not be dated"—we are arrested by nine and a half pages of a "symposium" entitled "What about Ribs?" Osteopaths from far and wide have sent in their comments on some remarks made in a previous issue of their journal. C. A. Porter writes: "I wish I could be sure in the diagnosis and treatment of ribs. They surely exist, but I have seen very few where I felt reasonably sure of my diagnosis and less in which I was sure of correction." O. B. Gates writes: "I say ribs are very important and should be adjusted whenever out of line, which is very frequent indeed." Fred Taylor writes: "I am strong on ribs, and believe we overlook many rib lesions. I agree they are hard to reduce." S. B. Kiblinger writes: "Ribs cause lots of trouble, as do the vertebrae. I find many cases where the ribs are wholly at fault." G. C. Wilke writes: "Ribs are hard to adjust, and most of us don't adjust them either. All severe heart conditions, that I have found due to lesions, were due to rib lesions. A very important subject." E. C. Murphy writes: "I fix ribs." Ernest Fessenden writes: "Ribs are hard, especially when the one affected is over the heart, and patient thinks he is dying of heart trouble. Ribs, I find, must be fixed independently of the vertebrae. When you do fix this 'heart disease' your reputation is made." Harry Sinden writes: "Ribs are a cinch. But be sure the pelvis is straight before you attempt to correct any rib lesion." Edith W. Pollock writes: "Why can't any osteopath adjust rib lesions? I didn't know they couldn't. The ones who can't, would better go back for a P.G. course in technic or brush up on anatomy, and think." That, however, is the point. Are people who can write such arrant nonsense capable of thinking?

HICCUP.

DR. H. J. FARDON (Reigate) writes: In the JOURNAL of January 13th I was interested in finding a reference to Mr. Money's remedy for hiccup—namely, drinking out of the opposite side of the glass. It so happened that a few months ago I had an attack of hiccup which lasted three days continuously. In desperation I tried this humorous remedy. Lying across the bed on my abdomen I bent my head downwards over the edge of the bed almost to floor and in this attitude I managed to perform the feat of drinking water from the far side of the tumbler. I have not hiccuped since. I consider that it is the attitude of head downwards rather than the cessation of breathing which is the effectual item of this cure.

LIEUT.-COLONEL G. T. LANGRIDGE, R.A.M.C., ret. (Bournemouth), writes: Over forty years ago my wife saw the method used by a young artillery officer, a guest at her father's house. He was attacked by hiccups at dinner, and drank out of his finger bowl in the manner described, and they ceased at once. It made an impression on her, and I have seen it often used by friends and have never known it to fail.

VACANCIES.

NOTIFICATIONS of offices vacant in universities, medical colleges, and of vacant resident and other appointments at hospitals, will be found at pages 37, 38, 39, 42, and 43 of our advertisement columns, and advertisements as to partnerships, assistantships, and locumtenencies at pages 40 and 41.

A short summary of vacant posts notified in the advertisement columns appears in the *Supplement* at page *31*.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Six lines and under	0	9	0
Each additional line	0	1	6
Whole single column (three columns to page)	7	10	0
Half single column	3	15	0
Half page	10	0	0
Whole page	20	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Tuesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.